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Question 1 of 117

A 31-year-old woman who gave birth two weeks ago presents for review with her husband. He is worried by her mood as she now seems depressed and is interacting poorly with the baby. He describes her mood three days ago being much different, when she was talking in a rapid and incoherent fashion about the future. The mother denies any hallucinations but states that her child has been brought into a 'very bad world'. What is the most appropriate management?

Start fluoxetine	10%
Reassurance + review by health visitor	25%
Cognitive behavioural therapy	20%
Start lithium	3%
Arrange urgent admission	43%

The mother may be suffering from puerperal psychosis and needs urgent admission to allow psychiatric evaluation.

Whilst there is not a full complement of psychotic features there are a number of pointers towards significant mental health problems:

- poor interaction with the baby: this is very unusual, including in women with postnatal depression
- 'talking in an incoherent fashion about the future'
- stating that the baby 'has been brought into a very bad world' is odd and somewhat worrying

For these reasons, the mother should have an urgent psychiatric evaluation.

Discuss (2) | Improve

Next question

Postpartum mental health problems

Postpartum mental health problems range from the 'baby-blues' to puerperal psychosis.

The **Edinburgh Postnatal Depression Scale** may be used to screen for depression:

- 10-item questionnaire, with a maximum score of 30
- indicates how the mother has felt over the previous week
- score > 13 indicates a 'depressive illness of varying severity'
- sensitivity and specificity > 90%
- includes a question about self-harm

'Baby-blues'	Postnatal depression	Puerperal psychosis
Seen in around 60-70% of women Typically seen 3-7 days following birth and is more common in primips Mothers are characteristically anxious, tearful and irritable	Affects around 10% of women Most cases start within a month and typically peaks at 3 months Features are similar to depression seen in other circumstances	Affects approximately 0.2% of women Onset usually within the first 2-3 weeks following birth Features include severe swings in mood (similar to bipolar disorder) and disordered perception (e.g. auditory hallucinations)
Reassurance and support, the health visitor has a key role	As with the baby blues reassurance and support are important NICE CKS state '*Most women with the baby blues will not require specific treatment other than reassurance*' Cognitive behavioural therapy may be beneficial. Certain SSRIs such as sertraline and paroxetine* may be used if symptoms are severe** - whilst they are secreted in breast milk it is not thought to be harmful to the infant	Admission to hospital is usually required, ideally in a Mother & Baby Unit There is around a 25-50% risk of recurrence following future pregnancies

*paroxetine is recommended by SIGN because of the low milk/plasma ratio
**fluoxetine is best avoided due to a long half-life

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Question 2 of 117

A 24-year-old man is sectioned under the mental health act after being bought in displaying clearly abnormal behaviour and describing auditory hallucinations.

He is diagnosed with schizophrenia and is started on an atypical antipsychotic. Prior to commencing the agent, all investigations were normal. After a few months of treatment, the patient's symptoms have improved however it is noted he has gained a considerable amount of weight. A repeat lipid profile shows:

Total cholesterol	6.8 mmol/L	<5.2
HDL	0.9 mmol/L	1-1.6
LDL	5 mmol/L	<4.2
Triglycerides	3 mmol/L	<1.7

What agent was the patient most likely started on?

Aripiprazole	4%
Clozapine	10%
Haloperidol	4%
Olanzapine	78%
Quetiapine	5%

Olanzapine has a higher risk than other atypicals for dyslipidemia and obesity

Important for me Less important

NICE guidelines current suggest index cases of schizophrenia should now be commenced on an atypical antipsychotic as first-line. On starting antipsychotic treatment this patient has developed dyslipidaemia, as displayed by the lipid blood tests, and significant weight gain. Several atypical antipsychotics can be associated with these adverse effects however **olanzapine** has a relatively higher risk comparatively. Olanzapine is believed to cause higher deregulation of hepatic lipid metabolism resulting in this increased hyperlipidaemia and weight gain.

Aripiprazole has a general good side-effect profile when compared to other atypical agents and is not commonly associated with dyslipidaemia and weight gain. Aripiprazole has, however, been associated with the movement disorder akathisia and therefore this should be monitored.

Clozapine was one of the first atypical antipsychotics to be introduced and although it has a significant side effect profile it is not as associated with dyslipidaemia and weight gain as olanzapine. One of the most significant adverse effects of clozapine is the risk of agranulocytosis. As such clozapine is mainly reserved for patients who are unresponsive to other antipsychotic agents.

Haloperidol is a typical, not an atypical, antipsychotic agent and therefore will not have been commenced in this case. Typical antipsychotics are more associated with extrapyramidal symptoms such as tardive dyskinesia, parkinsonism, and dystonia and so guidelines now advise commencing patients on atypical antipsychotics first-line.

Quetiapine again has a lower association with dyslipidaemia and weight gain when compared to olanzapine. Quetiapine is believed to have a higher affinity to Î±1-adrenergic and histamine-1 receptors and therefore patients may be at high risk of orthostatic hypotension and transient sedation.

Discuss (1) Improve

Next question

Atypical antipsychotics

Atypical antipsychotics should now be used first-line in patients with schizophrenia, according to 2005 NICE guidelines. The main advantage of the atypical agents is a significant reduction in extrapyramidal side-effects.

Adverse effects of atypical antipsychotics

- weight gain
- clozapine is associated with agranulocytosis (see below)
- hyperprolactinaemia

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Examples of atypical antipsychotics

- clozapine
- olanzapine: higher risk of dyslipidemia and obesity
- risperidone
- quetiapine
- amisulpride
- aripiprazole: generally good side-effect profile, particularly for prolactin elevation

Next question

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Links

NICE 3 0

2014 Schizophrenia guidelines

BNF 1 1

Clozapine

Report broken link

Media

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Question 3 of 117

A 23-year-old man asks to be referred to a plastic surgeon. From his records you can see he has been treated for anxiety and depression with fluoxetine previously and has been off work with back pain for the past three months. He is concerned that his ears are too big in proportion to his face. He reports that he now seldom leaves the house because of this. On examination his ears appear to be within normal limits. What is the most appropriate description of this behaviour?

Hypochondriasis	4%
Generalised anxiety disorder	2%
Somatisation	5%
Malingering	3%
Dysmorphophobia	86%

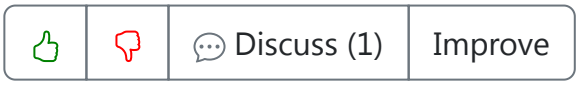
The correct answer in this scenario is **Dysmorphophobia**. Dysmorphophobia, also known as body dysmorphic disorder (BDD), is a mental health condition where an individual obsesses over perceived flaws or defects in their appearance that are either minor or not observable by others. In this case, the patient believes his ears are too big in proportion to his face, despite them appearing within normal limits upon examination. This preoccupation with his appearance has led him to avoid social situations and become housebound.

Hypochondriasis, now referred to as illness anxiety disorder, is a condition where a person becomes excessively worried about having a serious illness based on normal bodily sensations or minor symptoms. The focus here is on the fear of having an illness rather than concerns about physical appearance.

Generalised anxiety disorder (GAD) is characterized by excessive and persistent worry about various aspects of life, such as work, health, family, and finances. Although it may be possible for someone with GAD to worry about their appearance as well, the primary concern in this case appears to be specifically related to the size of the patient's ears rather than generalized anxiety.

Somatisation refers to the process by which psychological distress manifests itself through physical symptoms. In this scenario, there are no physical symptoms reported by the patient - his distress relates solely to his perception of his ears' size.

Malingering involves intentionally feigning or exaggerating physical or psychological symptoms for personal gain, such as financial compensation or avoiding work responsibilities. In this case, there is no evidence suggesting that the patient's concerns about his ears are fabricated for personal gain.



Next question

Body dysmorphic disorder

Body dysmorphic disorder (sometimes referred to as dysmorphophobia) is a mental disorder where patients have a significantly distorted body image

Diagnostic and Statistical Manual (DSM) IV criteria:

- Preoccupation with an imagine defect in appearance. If a slight physical anomaly is present, the person's concern is markedly excessive
- The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning
- The preoccupation is not better accounted for by another mental disorder (e.g., dissatisfaction with body shape and size in Anorexia Nervosa)

Next question

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Question 4 of 117

Which one of the following interventions is most likely to be beneficial in a patient with schizophrenia?

Counselling	1%
Supportive psychotherapy	31%
Social skills training	6%
Adherence therapy	16%
Cognitive behavioural therapy	45%

The correct answer is **Cognitive behavioural therapy** (CBT). According to the National Institute for Health and Care Excellence (NICE) guidelines, CBT is recommended for all people with schizophrenia. This form of therapy helps patients deal with their symptoms by changing the way they think and behave. It can reduce the severity of symptoms and improve quality of life.

The first incorrect option, **Counselling**, while beneficial in many mental health conditions, has not been proven as the most effective intervention in schizophrenia. Counselling typically involves talking about feelings and emotions related to personal experiences, but it does not specifically target the cognitive distortions or delusional beliefs common in schizophrenia.

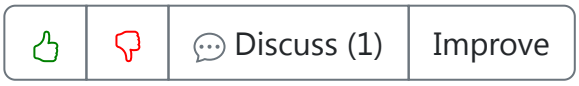
Supportive psychotherapy is another incorrect option. This type of therapy aims to foster a therapeutic relationship between patient and therapist to enhance self-esteem, reduce anxiety, and improve adaptive skills. However, it doesn't directly address the cognitive distortions that are characteristic of schizophrenia.

Social skills training, although useful in improving social functioning in individuals with schizophrenia, is not considered as effective as CBT in managing the overall symptoms of the disease. Social skills training focuses on teaching patients how to interact more effectively with others, which can be beneficial but does not directly target psychotic symptoms such as hallucinations or delusions.

Lastly, **Adherence therapy** is also an incorrect choice. Adherence therapy aims at improving medication compliance through education about illness and treatment benefits. While this may be helpful for some patients who struggle with medication adherence, it doesn't address cognitive

distortions or other core symptoms of schizophrenia like CBT does.

In conclusion, while all these interventions may play a role in managing different aspects of schizophrenia according to individual needs and circumstances, Cognitive Behavioural Therapy stands out as being most likely beneficial due to its comprehensive approach towards symptom management according to NICE guidelines.



Next question

Schizophrenia: management

NICE published guidelines on the management of schizophrenia in 2009.

Key points:

- oral atypical antipsychotics are first-line
- cognitive behavioural therapy should be offered to all patients
- close attention should be paid to cardiovascular risk-factor modification due to the high rates of cardiovascular disease in schizophrenic patients (linked to antipsychotic medication and high smoking rates)

Next question



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Question 5 of 117

A 35-year-old man with a history of schizophrenia is transferred to the Emergency Department due to an oculogyric crisis. What is the most appropriate treatment?

Selegiline	4%
Haloperidol	14%
Procyclidine	68%
Bromocriptine	10%
Cabergoline	4%

The correct answer is **Procyclidine**. An oculogyric crisis is a dystonic reaction, typically associated with the use of antipsychotic medications. It presents as sustained, often painful, upward deviation of the eyes. Procyclidine, an anticholinergic drug, is used in the management of extrapyramidal symptoms caused by antipsychotics. It works by blocking the action of acetylcholine in the central nervous system, which helps to reduce muscle stiffness and spasms.

The first incorrect option is **Selegiline**. Selegiline is a monoamine oxidase-B (MAO-B) inhibitor and it's primarily used for treating Parkinson's disease by increasing dopamine levels in the brain. While it can help manage motor symptoms related to dopamine deficiency, it would not be effective in treating an oculogyric crisis.

Haloperidol, another incorrect option, is an antipsychotic medication that can actually cause an oculogyric crisis as a side effect due to its dopamine-blocking activity. Using haloperidol to treat this condition would likely worsen the patient's symptoms.

Bromocriptine and **Cabergoline** are both dopamine agonists used in the treatment of hyperprolactinemia and Parkinson's disease. They work by stimulating dopamine receptors. However, they are not typically used to treat extrapyramidal symptoms like an oculogyric crisis. In fact, excessive stimulation of dopaminergic pathways could potentially exacerbate certain extrapyramidal reactions.

Discuss (1) | Improve

Next question

Antipsychotics

Antipsychotics are a group of drugs used in the management of schizophrenia and other forms of psychosis, mania and agitation. They are usually divided into typical and atypical antipsychotics. The atypical antipsychotics were developed due to the problematic extrapyramidal side-effects which are associated with the first generation of typical antipsychotics.

	Typical antipsychotics	**Atypical antipsychotics**
Mechanism of action	Dopamine D2 receptor antagonists, blocking dopaminergic transmission in the mesolimbic pathways	Act on a variety of receptors (D2, D3, D4, 5-HT)
Adverse effects	Extrapyramidal side-effects and hyperprolactinaemia common	Extrapyramidal side-effects and hyperprolactinaemia less common Metabolic effects
Examples	Haloperidol Chlorpromazine	Clozapine Risperidone Olanzapine

The rest of this section will focus on typical antipsychotics, with atypical antipsychotics covered elsewhere.

Extrapyramidal side-effects (EPSEs)

- Parkinsonism
- acute dystonia
  - sustained muscle contraction (e.g. torticollis, oculogyric crisis)
  - may be managed with procyclidine
- akathisia (severe restlessness)
- tardive dyskinesia (late onset of choreoathetoid movements, abnormal, involuntary, may occur in 40% of patients, may be irreversible, most common is chewing and pouting of jaw)

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke

- increased risk of venous thromboembolism

Other side-effects

- antimuscarinic: dry mouth, blurred vision, urinary retention, constipation
- sedation, weight gain
- raised prolactin
  - may result in galactorrhoea
  - due to inhibition of the dopaminergic tuberoinfundibular pathway
- impaired glucose tolerance
- neuroleptic malignant syndrome: pyrexia, muscle stiffness
- reduced seizure threshold (greater with atypicals)
- prolonged QT interval (particularly haloperidol)

Next question

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Links

BNF 1 0

Psychoses and related disorders

Clinical Knowledge Summaries 2 1

Schizophrenia > Prescribing Information > Adverse effects

Report broken link

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Question 6 of 117

Which of the following types of tricyclic antidepressant is considered the safest in overdosage?

Nortriptyline	21%
Imipramine	16%
Dosulepin	13%
Lofepramine	41%
Clomipramine	8%

Lofepramine - the safest TCA in overdosage

Important for me Less important

The correct answer is **Lofepramine**. Lofepramine is a third-generation tricyclic antidepressant (TCA) and is considered the safest in overdosage due to its lower cardiotoxicity compared with other TCAs. This reduced cardiotoxicity is because lofepramine has less affinity for cardiac fast sodium channels, which are responsible for the life-threatening arrhythmias associated with TCA overdose.

Nortriptyline is a second-generation TCA and while it has a lower risk of cardiotoxicity compared to first-generation TCAs, it still presents a significant risk in overdose situations. Its side effects can include tachycardia, QT interval prolongation, and complete heart block.

Imipramine, another second-generation TCA, also carries a higher risk of cardiotoxicity in overdose than lofepramine. It may cause serious cardiovascular complications such as arrhythmias, hypertension or hypotension, and even cardiac arrest.

Dosulepin (also known as Dothiepin) has been shown to have the highest fatality rate in overdose of all TCAs according to UK data from the National Programme on Substance Abuse Deaths. It can lead to severe cardiovascular toxicity including tachycardia, hypotension and QT prolongation leading to torsades de pointes.

Lastly, **Clomipramine** is another second-generation TCA that carries significant risk in overdosage. It can cause seizures at relatively low levels of overdose and has strong anticholinergic effects

which can lead to dangerous conditions like paralytic ileus.

Therefore, despite all being part of the same class of medications - tricyclic antidepressants - there are significant differences in their safety profiles when taken in excessive quantities. Lofepramine's lower affinity for cardiac fast sodium channels makes it the safest option among these five choices in cases of overdosage.

Discuss (3) Improve

Next question

Tricyclic antidepressants

Tricyclic antidepressants (TCAs) are used less commonly now for depression due to their side-effects and toxicity in overdose. They are however used widely in the treatment of neuropathic pain, where smaller doses are typically required.

The primary mechanism by which TCAs exert their antidepressant effects is through the inhibition of the reuptake of neurotransmitters

- Serotonin (5-HT): This neurotransmitter has a pivotal role in mood regulation. Inhibition of its reuptake leads to increased concentrations in the synaptic cleft, enhancing serotonergic neurotransmission.
- Noradrenaline (NA): Similar to 5-HT, blocking the reuptake of NA increases its synaptic cleft concentration, intensifying noradrenergic neurotransmission.

As well as 5-HT and NA, tricyclics interact with number of other receptors that contribute to their side-effect profile:

- antagonism of histamine receptors
  - drowsiness
- antagonism of muscarinic receptors
  - dry mouth
  - blurred vision
  - constipation
  - urinary retention
- antagonism of adrenergic receptors
  - postural hypotension
- lengthening of QT interval

Choice of tricyclic

- low-dose amitriptyline is commonly used in the management of neuropathic pain and the prophylaxis of headache (both tension and migraine)
- lofepramine has a lower incidence of toxicity in overdose
- amitriptyline and dosulepin (dothiepin) are considered the most dangerous in overdose

More sedative	Less sedative
Amitriptyline Clomipramine Dosulepin Trazodone*	Imipramine Lofepramine Nortriptyline

*trazodone is technically a 'tricyclic-related antidepressant'

Next question

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Antidepressants

Speed Pharmacology - YouTube

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Question 7 of 117

A 68-year-old gentleman is brought into hospital by his husband who says he has reported seeing flashing images of foxes and badgers in their living room. This is something that is extremely distressing to the patient, and has made him reluctant to venture into some areas of the house. You wonder if this might be Charles-Bonnet syndrome.

Which of the following risk factors may pre-dispose this gentleman to Charles-Bonnet syndrome?

Caucasian	4%
Peripheral visual impairment	80%
Male gender	8%
Hypertension	4%
Occupational history of working in sewers	5%

Charles-Bonnet syndrome - peripheral visual impairment is a risk factor

Important for me Less important

Charles-Bonnet syndrome is characterised by visual hallucinations associated with eye disease.

Most common visual hallucinations are faces, children and wild animals.

It occurs in patients of increasing age; equally amongst males and females; and with no known increased risk with family history.

Discuss (4) Improve

Next question

Charles-Bonnet syndrome

Charles-Bonnet syndrome (CBS) is characterised by persistent or recurrent complex hallucinations (usually visual or auditory), occurring in clear consciousness. This is generally against a background of visual impairment (although visual impairment is not mandatory for a diagnosis). Insight is usually preserved. This must occur in the absence of any other significant neuropsychiatric disturbance.

Risk factors include:

- Advanced age
- Peripheral visual impairment
- Social isolation
- Sensory deprivation
- Early cognitive impairment

CBS is equally distributed between sexes and does not show any familial predisposition. The most common ophthalmological conditions associated with this syndrome are age-related macular degeneration, followed by glaucoma and cataract.

Well-formed complex visual hallucinations are thought to occur in 10-30 per cent of individuals with severe visual impairment. Prevalence of CBS in visually impaired people is thought to be between 11 and 15 per cent.

Around a third find the hallucinations themselves an unpleasant or disturbing experience. In a large study published in the British Journal of Ophthalmology, 88% had CBS for 2 years or more, resolving in only 25% at 9 years (thus it is not generally a transient experience).

Cox (2014) Negative outcome Charles Bonnet Syndrome. Br J Ophthalmol.

Next question

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Question 8 of 117

Which one of the following is least recognised as a potential adverse effect of electroconvulsive therapy?

Nausea	13%
Epilepsy	47%
Cardiac arrhythmias	23%
Short term memory impairment	14%
Headache	4%

Although electroconvulsive therapy, by definition, causes a controlled seizure there is no increased risk of epilepsy in the long-term.

Discuss (3) | Improve

Next question

Electroconvulsive therapy

Electroconvulsive therapy is a useful treatment option for patients with severe depression refractory to medication (e.g. catatonia) those with psychotic symptoms. The only absolute contraindications is raised intracranial pressure.

Short-term side-effects

- headache
- nausea
- short term memory impairment
- memory loss of events prior to ECT
- cardiac arrhythmia

Long-term side-effects

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Question 9 of 117

A 62-year-old man is brought to the doctors by his daughter. Four weeks ago his wife died from metastatic breast cancer. He reports being tearful every day but his daughter is concerned because he is constantly 'picking fights' with her over minor matters and issues relating to their family past. The daughter also reports that he has on occasion described hearing his wife talking to him and on one occasion he prepared a meal for her.

Despite this he has started going walking again with friends and says that he is determined to get 'back on track'.

What is the most likely diagnosis?

Atypical grief reaction	20%
Depression without psychotic features	3%
Delusional disorder	2%
Depression with psychotic features	18%
Normal grief reaction	56%

Discuss (4) | Improve

Next question

Grief reaction

It is normal for people to feel sadness and grief following the death of a loved one and this does not necessarily need to be medicalised. However, having some understanding of the potential stages a person may go through whilst grieving can help determine whether a patient is having a 'normal' grief reaction or is developing a more significant problem.

One of the most popular models of grief divides it into 5 stages.

- Denial: this may include a feeling of numbness and also pseudohallucinations of the deceased, both auditory and visual. Occasionally people may focus on physical objects that remind them of their loved one or even prepare meals for them
- Anger: this is commonly directed against other family members and medical professionals
- Bargaining
- Depression
- Acceptance

It should be noted that many patients will not go through all 5 stages.

Abnormal, or atypical, grief reactions are more likely to occur in women and if the death is sudden and unexpected. Other risk factors include a problematic relationship before death or if the patient has not much social support.

Features of atypical grief reactions include:

- delayed grief: sometimes said to occur when more than 2 weeks passes before grieving begins
- prolonged grief: difficult to define. Normal grief reactions may take up to and beyond 12 months

Next question

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Question 11 of 117

You a reviewing a 24-year-old man who complains of auditory hallucinations. These have become increasingly common and are now happening on a daily basis. Which one of the following factors in his history is the strongest risk factor for psychotic disorders?

Indian subcontinent ethnicity	1%
Having a parent with schizophrenia	76%
A history of long-term cannabis use	16%
A history of being sexually abused when younger	7%
Working in the performing arts	1%

Family history is the strongest risk factor for psychotic disorders

Important for me Less important

The correct answer in this case is **Having a parent with schizophrenia**. This is because a family history of schizophrenia, particularly in first-degree relatives such as parents, significantly increases the risk of developing psychotic disorders. It is estimated that individuals with a parent who has schizophrenia have around a 10% chance of developing the condition themselves. This increased risk is thought to be due to both genetic factors and shared environmental influences.

Indian subcontinent ethnicity is not considered a strong risk factor for psychotic disorders. Although some studies have suggested that certain ethnic groups may have higher rates of psychosis compared to others, these differences are often attributed to social and environmental factors rather than inherent biological differences between ethnicities.

A history of **long-term cannabis use** has been associated with an increased risk of developing psychotic disorders, but the strength of this association is weaker than having a parent with schizophrenia. While there is evidence suggesting that regular cannabis use can increase the likelihood of experiencing psychotic symptoms, it remains unclear whether this relationship is causal or simply reflects an underlying vulnerability to psychosis among individuals who use cannabis.

While a history of being **sexually abused when younger** has been linked to various mental

health issues, including depression, anxiety, and post-traumatic stress disorder (PTSD), the association between childhood sexual abuse and psychotic disorders is less clear-cut. Some studies have reported an increased risk of psychosis among individuals who experienced sexual abuse during childhood; however, this relationship appears to be weaker than the link between parental schizophrenia and psychosis.

Finally, **working in the performing arts** does not represent a significant risk factor for psychotic disorders. Although some research has suggested that creative individuals may be more prone to certain mental health issues such as mood disorders or substance misuse problems, there is no robust evidence linking involvement in the performing arts specifically with an increased risk of developing psychosis.

Discuss (3) Improve

Next question

Schizophrenia: epidemiology

The strongest risk factor for developing a psychotic disorder (including schizophrenia) is family history. Having a parent with schizophrenia leads to a relative risk (RR) of 7.5.

Risk of developing schizophrenia

- monozygotic twin has schizophrenia = 50%
- parent has schizophrenia = 10-15%
- sibling has schizophrenia = 10%
- no relatives with schizophrenia = 1%

Other selected risk factors for psychotic disorders include:

- Black Caribbean ethnicity - RR 5.4
- Migration - RR 2.9
- Urban environment- RR 2.4
- Cannabis use - RR 1.4

Next question

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Question 10 of 117

A 65-year-old woman presents with a six-month history of low mood and anhedonia. She has tried cognitive behavioural therapy without benefit. She has also had four-week trials of sertraline and citalopram without improvement. The patient is keen to trial a medication from a different class of anti-depressants.

What drug has a different mechanism to those already trialled?

Duloxetine	60%
Escitalopram	5%
Fluoxetine	10%
Fluvoxamine	20%
Paroxetine	5%

Duloxetine mechanism of action = serotonin and noradrenaline reuptake inhibitor

Important for me Less important

Duloxetine is the correct answer. Duloxetine is a serotonin and noradrenaline reuptake inhibitor. Sertraline and citalopram are both selective serotonin reuptake inhibitors (SSRIs), and duloxetine is the only drug listed above that is not an SSRI. Duloxetine is licensed for depression and anxiety disorders, diabetic neuropathy and stress incontinence.

Escitalopram is the incorrect answer as like sertraline and citalopram, it is an SSRI. Escitalopram is an active enantiomer of citalopram and is licensed for depression, anxiety disorders and obsessive-compulsive disorder (OCD).

Fluoxetine is the incorrect answer as like sertraline and citalopram, it is an SSRI. Fluoxetine is licenced for treating depression, bulimia, obsessive-compulsive disorder, and vasomotor menopausal symptoms.

Fluvoxamine is the incorrect answer as like sertraline and citalopram, it is an SSRI. Fluvoxamine is licensed for depression and OCD but is rarely used in the UK.

Paroxetine is the incorrect answer as like sertraline and citalopram, it is an SSRI. Paroxetine is licensed for depression and anxiety disorders, OCD and vasomotor menopausal symptoms. However, it has a higher incidence of discontinuation symptoms than other SSRIs.

Discuss (1) Improve

Next question

Serotonin and noradrenaline reuptake inhibitors

Serotonin and noradrenaline reuptake inhibitor (SNRI's) are a class of relatively new antidepressants. Inhibiting the reuptake increases the concentrations of serotonin and noradrenaline in the synaptic cleft leading to the effects. Examples include venlafaxine and duloxetine. They are used to treat major depressive disorders, generalised anxiety disorder, social anxiety disorder and panic disorder and menopausal symptoms.

Next question

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Antidepressants

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Question 12 of 117

A 63-year-old patient presents to the emergency department with reports of haematemesis and black stools. She has a background of alcohol excess and typically drinks 8 units per day.

You initiate basic management and start seeing another patient when a crash call sounds, and you find the patient having a seizure.

What is the most likely time period since she last consumed alcohol?

24 hours	10%
36 hours	62%
4 hours	2%
6-12 hours	10%
72 hours	15%

Alcohol withdrawal

- symptoms: 6-12 hours
- seizures: 36 hours
- delirium tremens: 72 hours

Important for me Less important

36 hours is correct. Symptoms of alcohol withdrawal occur as GABA is the main inhibitory neurotransmitter in the central nervous system. This has certain binding sites for ethanol, so increases inhibition in the CNS when present. Long-term alcohol exposure to GABA results in continuous inhibition effects on the brain. Further, ethanol binds to glutamate, which is an excitatory amino acid in the CNS. When this binds to glutamate, this inhibits excitation of the CNS, worsening the inhibitory effect.

Mild symptoms can occur within six hours of alcohol cessation and the times in this question are rough guidelines. This will vary depending on individual patient factors such as their duration of alcohol dependence, and typical use. Early symptoms can include tremors, hyperreflexia, anxiety, gastrointestinal upset, headache, and palpitations.

Moderate symptoms include hallucinations and alcohol withdrawal seizures that can occur 12 to 24 hours after cessation of alcohol and are typically generalised in nature. Approximately half of those that have a withdrawal seizure will go on to have delirium tremens. Delirium tremens is the most severe form of alcohol withdrawal and occur due to autonomic dysfunction from excitation of the CNS. Vital sign abnormalities also occur. This can present with visual hallucinations, tachycardia, hypertension, hyperthermia, agitation, and diaphoresis. These symptoms can last up to seven days after alcohol withdrawal and sometimes can progress even longer than this.

24 hours is incorrect, seizures typically occur at the 36-hour period as explained above, however, time can vary widely.

4 hours s incorrect, in this time frame mild symptoms may begin to occur such as tremors, anxiety, and elevated blood pressure, although symptoms typically start from 6 hours onwards.

6-12 hours is incorrect, withdrawal symptoms typically start in this time frame and mild symptoms will occur such as tremors, hyperreflexia, anxiety, gastrointestinal upset, headache, and palpitations.

72 hours is incorrect, delirium tremens usually occur at this point and are the most severe outcome of alcohol withdrawal, as discussed above.

👍 👎 💬 Discuss (1) Improve

Next question

Alcohol withdrawal ★

Mechanism

- chronic alcohol consumption enhances GABA mediated inhibition in the CNS (similar to benzodiazepines) and inhibits NMDA-type glutamate receptors
- alcohol withdrawal is thought to be lead to the opposite (decreased inhibitory GABA and increased NMDA glutamate transmission)

Features

- symptoms start at 6-12 hours: tremor, sweating, tachycardia, anxiety
- peak incidence of seizures at 36 hours
- peak incidence of delirium tremens is at 48-72 hours: coarse tremor, confusion, delusions, auditory and visual hallucinations, fever, tachycardia

Management

- patients with a history of complex withdrawals from alcohol (i.e. delirium tremens, seizures, blackouts) should be admitted to hospital for monitoring until withdrawals stabilised
- first-line: long-acting benzodiazepines e.g. chlordiazepoxide or diazepam. Lorazepam may be preferable in patients with hepatic failure. Typically given as part of a reducing dose protocol
- carbamazepine also effective in treatment of alcohol withdrawal
- phenytoin is said not to be as effective in the treatment of alcohol withdrawal seizures

Next question

Textbooks

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Extended textbook

Score: **8.3%**

1	✗
2	✗
3	✗
4	✗
5	✗
6	✗
7	✓
8	✗
9	✗
10	✗

PassMedicine

Question 13 of 117

A 19-year-old woman presents with fatigue for several months. Her mother accompanies her, explaining that she is worried about her daughter's lack of appetite and that she has not been wanting to eat food. The patient explains that she feels she is fat and has been exercising at the gym every day for this reason. Her past medical history includes depression, asthma and amenorrhoea for the past 4 months.

On examination, she appears petite and very thin. Soft, fine hair is visible over the face and arms. She undergoes blood tests, the results of which are awaited.

What is most likely, given the diagnosis?

Low cortisol	15%
Low growth hormone	14%
Raised cholesterol	48%
Raised follicle-stimulating hormone (FSH)	19%
Raised potassium	5%

Anorexia features

- most things low
- **G**'s and **C**'s raised: **g**rowth hormone, **g**lucose, salivary **g**lands, **c**ortisol, **c**holesterol, **c**arotinaemia

Important for me Less important

This patient's history and presentation is suggestive of anorexia nervosa. This condition is characterised by low body weight, body image disturbance and an intense fear of gaining weight. Associated physical changes include the development of lanugo hair, bradycardia and hypotension. The general rule of thumb is that most investigations are 'low'; however, the 'G's and 'C's are raised. Of the options listed, **raised cholesterol** is the correct answer. This is thought to be due to decreased catabolism and stress-induced hypercortisolaemia.

Low cortisol is incorrect. Patients with anorexia nervosa are more likely to present with raised

cortisol, as part of an adaptive mechanism to maintain euglycaemia.

Low growth hormone is incorrect. Patients with anorexia nervosa have raised growth hormone levels, presumably as a compensatory response.

Raised follicle-stimulating hormone (FSH) is incorrect. Patients with the condition typically show low FSH levels, accompanied by hypothalamic amenorrhoea. The patient in this scenario reports a history of amenorrhoea for 4 months.

Raised potassium is incorrect. Patients with anorexia nervosa usually have low potassium due to malnutrition.

Discuss | Improve

Next question

Anorexia nervosa: features

Anorexia nervosa is associated with a number of characteristic clinical signs and physiological abnormalities which are summarised below

Features

- reduced body mass index
- bradycardia
- hypotension
- enlarged salivary glands

Physiological abnormalities

- hypokalaemia
- low FSH, LH, oestrogens and testosterone
- raised cortisol and growth hormone
- impaired glucose tolerance
- hypercholesterolaemia
- hypercarotinaemia
- low T3

Next question

Textbooks

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Media



Anorexia nervosa

Osmosis - YouTube 12 3

Report broken media

Score: **7.7%**

1	✗
2	✗
3	✗
4	✗
5	✗
6	✗
7	✓
8	✗
9	✗
10	✗
11	✗

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Question 14 of 117

A 77-year-old woman presents to the emergency department with shortness of breath, productive cough and confusion. She is treated for delirium, secondary to a chest infection, with intravenous antibiotics and admitted to the geriatrics ward for observation.

Overnight, she becomes agitated and restless. Initial measures to settle her are unsuccessful; the on-call doctor prescribes haloperidol, which takes effect quickly and reduces her agitation.

What receptor does this drug primarily antagonise?

$5HT_2$	11%
$5HT_3$	9%
D_1	20%
D_2	58%
H_1	2%

Haloperidol - dopamine D2 receptor antagonist, blocking dopaminergic transmission in the mesolimbic pathways

Important for me Less important

Haloperidol is a first-generation, 'typical' antipsychotic commonly used for a number of purposes. Apart from its use as an antipsychotic in psychiatric patients, it is often used in the context of delirium as seen here. It also plays a role in the management of nausea, especially in the palliative setting. It binds to numerous receptors, with different affinities for each. Primarily, it antagonises the dopamine **D_2 receptor**.

Haloperidol also antagonises the serotonin **5HT_2** receptor. However, its effect on the D_2 receptor is far more effective at any given concentration.

The drug is not known to significantly affect the serotonin **5HT_3 receptor**. Examples of antagonists of this receptor include the antiemetic ondansetron and newer-generation, 'atypical' antipsychotics such as quetiapine and olanzapine.

The drug also binds to the dopamine **D_1 receptor**. However, this effect is not as significant as the effect on the D_2 receptor.

Haloperidol has some effect on the histamine **H_1 receptor**. This effect, however, requires much higher concentrations of haloperidol.

Discuss | Improve

Next question

Antipsychotics

Antipsychotics are a group of drugs used in the management of schizophrenia and other forms of psychosis, mania and agitation. They are usually divided into typical and atypical antipsychotics. The atypical antipsychotics were developed due to the problematic extrapyramidal side-effects which are associated with the first generation of typical antipsychotics.

	Typical antipsychotics	**Atypical antipsychotics**
Mechanism of action	Dopamine D2 receptor antagonists, blocking dopaminergic transmission in the mesolimbic pathways	Act on a variety of receptors (D2, D3, D4, 5-HT)
Adverse effects	Extrapyramidal side-effects and hyperprolactinaemia common	Extrapyramidal side-effects and hyperprolactinaemia less common Metabolic effects
Examples	Haloperidol Chlorpromazine	Clozapine Risperidone Olanzapine

The rest of this section will focus on typical antipsychotics, with atypical antipsychotics covered elsewhere.

Extrapyramidal side-effects (EPSEs)

- Parkinsonism
- acute dystonia
  - sustained muscle contraction (e.g. torticollis, oculogyric crisis)
  - may be managed with procyclidine

- akathisia (severe restlessness)
- tardive dyskinesia (late onset of choreoathetoid movements, abnormal, involuntary, may occur in 40% of patients, may be irreversible, most common is chewing and pouting of jaw)

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Other side-effects

- antimuscarinic: dry mouth, blurred vision, urinary retention, constipation
- sedation, weight gain
- raised prolactin
  - may result in galactorrhoea
  - due to inhibition of the dopaminergic tuberoinfundibular pathway
- impaired glucose tolerance
- neuroleptic malignant syndrome: pyrexia, muscle stiffness
- reduced seizure threshold (greater with atypicals)
- prolonged QT interval (particularly haloperidol)

Next question

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BNF

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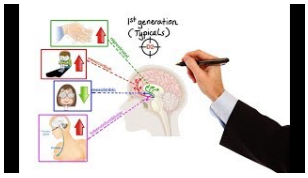
Psychoses and related disorders

Clinical Knowledge Summaries 2 1

Schizophrenia > Prescribing Information > Adverse effects

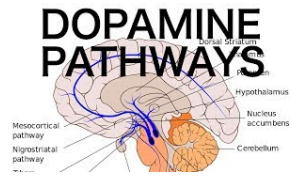
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Media



Antipsychotics

Speed Pharmacology - YouTube 38 0



Antipsychotics, Dopamine, and EPS

Dirty USMLE - YouTube 24 0



Video of patients with tardive dyskinesia

Abnormal Involuntary Movement Scale training video - YouTube 17 3

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Score: **7.1%**

1 ✕

2 ✕

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Question 15 of 117

Which one of the following selective serotonin reuptake inhibitors has the highest incidence of discontinuation symptoms?

Paroxetine	52%
Citalopram	16%
Escitalopram	5%
Fluoxetine	13%
Sertraline	14%

Paroxetine - higher incidence of discontinuation symptoms

Important for me Less important

The correct answer is **Paroxetine**. Paroxetine, a selective serotonin reuptake inhibitor (SSRI), has the highest incidence of discontinuation symptoms amongst all SSRIs. This is primarily due to its short half-life which leads to rapid plasma clearance. As a result, abrupt cessation or missed doses can lead to withdrawal symptoms such as dizziness, sleep disturbances, mood swings and irritability.

Citalopram and **Escitalopram**, though also SSRIs, have a lower incidence of discontinuation symptoms compared to Paroxetine. Their longer half-lives allow for more gradual withdrawal from the system, reducing the likelihood of experiencing withdrawal symptoms. However, it's important to note that discontinuation symptoms can still occur with these medications if they are stopped abruptly.

Fluoxetine has the lowest risk of causing discontinuation symptoms among all SSRIs due to its long half-life and active metabolites. It allows for a more gradual decrease in blood levels even when treatment is abruptly stopped.

Sertraline, while having a shorter half-life than Fluoxetine, Citalopram and Escitalopram but longer than Paroxetine, falls somewhere in between these drugs in terms of risk for discontinuation syndrome.

In conclusion, all SSRIs have potential for causing discontinuation symptoms if stopped abruptly; however, this risk is significantly higher with Paroxetine due to its short half-life and rapid plasma clearance. Therefore gradual tapering off is recommended under medical supervision according to UK guidelines.

Discuss (3) Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

Next question

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2 6

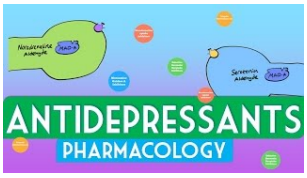
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Media



Antidepressants

Speed Pharmacology - YouTube 30 2



Antidepressants Pharmacology

Soton Brain Hub - YouTube 9 3

Report broken media

Score: **6.7%**

1 ✕

2 ✕

3 ✕

PassMedicine

Question 16 of 117

Which one of the following symptoms may indicate mania rather than hypomania?

Predominately elevated mood	15%
Delusions of grandeur	67%
Increased appetite	2%
Flight of ideas	13%
Irritability	3%

Whilst criteria vary (e.g. ICD-10, DSM-5) the consistent difference between mania and hypomania is the presence of psychotic symptoms.

Discuss (2) | Improve

Next question

Hypomania vs. mania

Mania	Hypomania
• Lasts for at least 7 days - Causes severe functional impairment in social and work setting • May require hospitalization due to risk of harm to self or others • May present with **psychotic symptoms**	• A lesser version of mania • Lasts for < 7 days, typically 3-4 days. Can be high functioning and does not impair functional capacity in social or work setting • Unlikely to require hospitalization • Does not exhibit any psychotic symptoms

Therefore, the length of symptoms, severity and presence of psychotic symptoms (e.g. delusions of grandeur, auditory hallucinations) helps differentiates mania from hypomania.

The following symptoms are common to both hypomania and mania

Mood

- predominately elevated
- irritable

Speech and thought

- pressured
- flight of ideas: characterised by rapid speech with frequent changes in topic based on associations, distractions or word play
- poor attention

Behaviour

- insomnia
- loss of inhibitions: sexual promiscuity, overspending, risk-taking
- increased appetite

Next question

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Links

Clinical Knowledge Summaries

3 3

Suspecting bipolar disorder

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Question 17 of 117

A 33-year-old woman presents requesting a series of blood tests as she believes she has breast cancer. She reports her mother was diagnosed with breast cancer at the age of 56 and recently she has felt like something was not right but did not describe any other symptoms.

She has a past medical history of squamous cell carcinoma of the cheek 8 years ago which was treated curatively by resection with no recurrence.

On examination, she has a body mass index of 25 kg/m^2. A breast examination is normal. Cardio-respiratory and abdominal examinations are normal.

You note that she had a normal mammogram 3 months previously and also had a panel of tumour marker blood tests which were all normal.

What is this condition likely to represent?

Conversion disorder	8%
Dissociative disorder	2%
Illness anxiety disorder	78%
Malingering	2%
Somatisation disorder	11%

Illness anxiety disorder (hypochondriasis) is the persistent belief in the presence of an underlying serious disease, e.g. cancer

Important for me Less important

The normal examination and lack of symptoms make a diagnosis of breast cancer unlikely. Combined with the persistent belief that this patient holds despite normal investigations, illness anxiety disorder (hypochondriasis) is the likely diagnosis.

There is no suggestion that she is seeking secondary gain from a diagnosis of breast cancer, therefore malingering is unlikely.

Conversion disorder is unlikely as there are no motor or sensory symptoms here. The patient's anxiety is specifically centred on her perception that she has a sinister diagnosis.

Dissociative disorder would usually present with psychiatric symptoms which are not seen here. There is no suggestion that she is disconnected from her thoughts, memories, identity or actions.

Somatisation disorder involves the presence of multiple physical symptoms for a prolonged period, rather than anxiety about a serious illness as seen in this case.

Discuss (2) Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder

- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Functional neurological disorder (conversion disorder)

- typically involves loss of motor or sensory function
- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)
- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Dissociative disorder

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor
- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Next question

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Royal College of Physicians 5 2

2013 Functional neurological symptoms

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Media

Dissociative disorders

Osmosis - YouTube 19 1

Factitious disorder

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Question 18 of 117

A 54-year-old man is brought to his general practitioner by his wife. She is concerned that he is not eating or drinking. He has a past medical history of depression.

Upon further questioning from his general practitioner, the patient reports that he sees no point in eating because he believes himself to be non-existent.

What is the correct description of what he is experiencing?

Capgras syndrome	6%
Cotard syndrome	82%
Couvade syndrome	4%
De Clerambault's syndrome	3%
Fregoli delusion	5%

Cotard syndrome is characterised by a person believing they are dead or non-existent

Important for me Less important

Cotard syndrome is correct. This is nihilistic delusional ideation whereby a patient believes they are dead or non-existent. It is associated with depression.

Capgras syndrome . This is a delusional disorder whereby a patient believes that someone close to them has been replaced by an imposter.

Couvade syndrome is incorrect. This is also known as a 'sympathetic pregnancy' is a disorder whereby biological fathers suffer the symptoms of pregnancy in the 1st and 3rd trimesters.

De Clerambault's Syndrome is incorrect. This is a delusional disorder whereby the patient thinks another person (typically wealthy or famous) is in love with them.

Fregoli delusion is incorrect. This is a delusional disorder whereby the patient believes that different people are in fact the same person in disguise.

Discuss | Improve

Next question

Cotard syndrome

Cotard syndrome is a rare mental disorder where the affected patient believes that they (or in some cases just a part of their body) is either dead or non-existent. This delusion is often difficult to treat and can result in significant problems due to patients stopping eating or drinking as they deem it not necessary.

Cotard syndrome is associated with severe depression and psychotic disorders.

Next question

Textbooks

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Score: **11.1%**

1 ✗
2 ✗
3 ✗
4 ✗

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Question 19 of 117

A 58-year-old lady presents to her GP concerned her partner is being unfaithful. She appears very distressed by this yet after further questioning does not appear to have any evidence to support her claims, yet she is convinced she is right. What might this concern be a symptom of?

Capgras' delusion	8%
Grandiose delusion	3%
de Clerambault's syndrome	8%
Othello's syndrome	78%
Charles Bonnet syndrome	3%

De Clerambault's syndrome also called erotomania is a delusional belief that someone else is in love with the patient. Charles Bonnet syndrome is the experience of complex visual hallucinations in patients with partial or severe blindness.

Discuss (2) | Improve

Next question

Othello's syndrome

Othello's syndrome is pathological jealousy where a person is convinced their partner is cheating on them without any real proof. This is accompanied by socially unacceptable behaviour linked to these claims.

Next question

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Question 20 of 117

You are considering prescribing a selective serotonin reuptake inhibitor for a patient with depression. Which class of drug is most likely to interact with a selective serotonin reuptake inhibitor?

Beta-blocker	7%
Thiazolidinediones	6%
Tetracycline	12%
Statin	12%
Triptan	63%

Triptans should be avoided in patients taking a SSRI

Important for me Less important

Triptans should be avoided in patients taking a selective serotonin reuptake inhibitor due to the increased risk of serotonin syndrome.

Discuss (3) Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness

- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

Next question

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NICE

2 6

2022 Depression in adults: treatment and management

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Antidepressants

Speed Pharmacology - YouTube

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Question 21 of 117

You are a junior doctor on the acute medical take. Your next patient has been admitted with an exacerbation of heart failure.

Whilst exploring his past medical history he confides in you he was in a road traffic collision 3 months ago in which a family friend was killed.

He explains he is struggling to sleep and feels he is constantly re-living the accident. He states he is afraid to leave the house in case it was to happen again and that any loud noises cause him to panic. He has increased his alcohol intake to try and forget about it and to help him sleep.

Which of the following treatments is most likely to help this man?

Olanzapine	4%
Eye movement desensitisation and reprocessing (EMDR) therapy	85%
GP to review in one month	1%
Single-session debrief therapy	4%
Tricyclic antidepressant	6%

PTSD management - trauma-focused cognitive behavioural therapy or EMDR

Important for me Less important

Olanzapine along with most other antipsychotics are not used in the management of post-traumatic stress disorder (PTSD). NICE recommends a trial of risperidone in patients with severe cases of PTSD.

EMDR therapy and cognitive behavioural therapy (CBT) can be trialled in patients were severe cases of post-traumatic stress disorder.

In mild cases lasting less than 4 weeks watchful waiting can be used. It may be appropriate in these scenarios for a GP to regularly review the patient. However in the above case, given the man in the above scenario has experienced severe symptoms for the past 12 weeks, this option would not be appropriate.

Single-session debrief therapy is not recommended following traumatic events and so this option is not correct.

Tricyclic antidepressants are not recommended in PTSD. If drug therapy is the be tried then SSRIs such as sertraline or venlafaxine (SNRI) can be tried.

Discuss (3) Improve

Next question

Post-traumatic stress disorder

Post-traumatic stress disorder (PTSD) can develop in people of any age following a traumatic event, for example, a major disaster or childhood sexual abuse. It encompasses what became known as 'shell shock' following the first world war. One of the DSM-IV diagnostic criteria is that symptoms have been present for more than one month.

Features

- re-experiencing: flashbacks, nightmares, repetitive and distressing intrusive images
- avoidance: avoiding people, situations or circumstances resembling or associated with the event
- hyperarousal: hypervigilance for threat, exaggerated startle response, sleep problems, irritability and difficulty concentrating
- emotional numbing - lack of ability to experience feelings, feeling detached

from other people

- depression
- drug or alcohol misuse
- anger
- unexplained physical symptoms

Management

- following a traumatic event single-session interventions (often referred to as debriefing) are not recommended
- watchful waiting may be used for mild symptoms lasting less than 4 weeks
- military personnel have access to treatment provided by the armed forces
- trauma-focused cognitive behavioural therapy (CBT) or eye movement desensitisation and reprocessing (EMDR) therapy may be used in more severe cases

- drug treatments for PTSD should not be used as a routine first-line treatment for adults. If drug treatment is used then venlafaxine or a selective serotonin reuptake inhibitor (SSRI), such as sertraline should be tried. In severe cases, NICE recommends that risperidone may be used

Next question

Textbooks

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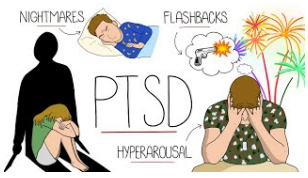
NICE

2018 PTSD guidelines

1 2

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Media



Post-traumatic stress disorder

Rhesus Medicine - YouTube 3 0



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Question 22 of 117

A 23-year-old male presents to his GP two weeks after a road traffic accident concerned about increased anxiety levels, lethargy and headache. At the time he had a CT brain after banging his head on the steering wheel, which revealed no abnormality. Six months following this episode his symptoms have resolved. What did his original symptoms likely represent?

Conversion disorder	4%
Post-traumatic stress disorder	31%
Somatisation disorder	6%
Generalised anxiety disorder	6%
Post-concussion syndrome	54%

In post-traumatic stress disorder the onset of symptoms is usually delayed and it tends to run a prolonged course

Discuss (2) | Improve

Next question

Post-concussion syndrome

Post-concussion syndrome is seen after even minor head trauma

Typical features include

- headache
- fatigue
- anxiety/depression
- dizziness

Next question

PassMedicine

Question 23 of 117

A 27-year-old woman is brought in by her husband. She has been refusing to go outside for the past 3 months, telling her husband she is afraid of catching avian flu. On exploring this further she is concerned due to the high number of migrating birds she can see in her garden. She reports that the presence of her husbands socks on the washing line in the garden alerted her to this. What is the most likely diagnosis?

Depression	1%
Hypochondrial disorder	13%
Formal thought disorder	23%
Borderline personality disorder	4%
Acute paranoid schizophrenia	59%

The correct answer to this question is **Acute paranoid schizophrenia**. This condition is characterised by the presence of delusions, hallucinations, disorganised speech and behaviour. The patient's fear of catching avian flu from seeing migrating birds in her garden, despite no reasonable risk, can be seen as a delusion. Furthermore, the belief that her husband's socks on the washing line alerted her to this danger suggests a degree of thought disorder - another key feature of schizophrenia.

Depression, while it may cause individuals to withdraw from social activities and stay indoors, does not typically result in such specific and unusual fears or beliefs. Patients with depression may have low mood, loss of interest or pleasure in activities they once enjoyed, feelings of guilt or low self-worth, disturbed sleep or appetite, low energy and poor concentration.

Hypochondrial disorder, also known as illness anxiety disorder, involves excessive worry about having a serious illness despite having no or only mild symptoms. While the woman is indeed worried about getting sick (avian flu), her belief system around how she might contract it (from migrating birds in her garden) suggests a delusional process rather than an over-concern with normal bodily sensations.

A **Formal thought disorder** is a disturbance in the flow and organisation of thought. It can manifest as 'word salad' (incoherent speech), neologisms (making up new words), tangentiality (going off-topic) or loose associations (ideas slipping off track). While this woman appears to have

some degree of thought disorder - given her belief about the socks alerting her to danger - there are no indications that this is her primary issue.

Lastly, **Borderline personality disorder** involves patterns of instability in personal relationships, self-image and emotions. People with this condition often engage in impulsive actions and have intense episodes of anger or sadness. They may also experience periods of paranoia under stress. However, their delusions are usually transient and related to interpersonal issues rather than external threats like catching avian flu.

Discuss (11) Improve

Next question

Schizophrenia: features

Schneider's first rank symptoms may be divided into auditory hallucinations, thought disorders, passivity phenomena and delusional perceptions:

Auditory hallucinations of a specific type:

- two or more voices discussing the patient in the third person
- thought echo
- voices commenting on the patient's behaviour

Thought disorders

- thought insertion
- thought withdrawal
- thought broadcasting

Passivity phenomena:

- bodily sensations being controlled by external influence
- actions/impulses/feelings - experiences which are imposed on the individual or influenced by others

Delusional perceptions

- a two stage process) where first a normal object is perceived then secondly there is a sudden intense delusional insight into the objects meaning for the patient e.g. 'The traffic light is green therefore I am the King'.

Other features of schizophrenia include

- impaired insight
- negative symptoms
  - incongruity/blunting of affect
  - anhedonia (inability to derive pleasure)
  - alogia (poverty of speech)
  - avolition (poor motivation)
  - social withdrawal
- neologisms: made-up words
- catatonia

Next question

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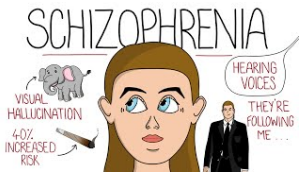
NICE

2014 Schizophrenia guidelines

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Question 24 of 117

A 19-year-old female has presented to the emergency department due to a week-long history of diarrhoea. She reports no blood in her stool or infective contacts. The patient feels she is sleeping more and feels generally weak.

She has a past medical history of depression for which she was started on sertraline. Two weeks ago she stopped taking this drug as she said she had a much brighter outlook on life. Her mental state is reported as currently stable and you assess her as euthymic.

Her general examination reveals bilaterally dilated pupils which are noted on previous attendances as a child.

What feature in this patient is most likely due to cessation of her medication?

Diarrhoea	69%
Euthymia	3%
Generalised weakness	6%
Hypersomnia	13%
Mydriasis	9%

Gastrointestinal side-effects such as diarrhoea are seen in SSRI discontinuation syndrome

Important for me Less important

Diarrhoea is the correct option as this young woman has stopped taking her sertraline two weeks prior to her presentation of protracted diarrhoea, which along with abdominal cramping and vomiting, are common symptoms seen in SSRI discontinuation syndrome. Furthermore, using Occam's razor, given the timeline and the normal blood results and lack of infective contacts, it is more likely to be this syndrome compared to inflammatory bowel disease or gastroenteritis.

Euthymia is incorrect as the SSRI discontinuation syndrome more commonly results in increased mood change.

Hypersomnia is an incorrect option because insomnia changes to the sleep pattern are more

commonly seen in SSRI discontinuation.

Generalised weakness is an incorrect option as this is more than likely due to diarrhoea and there is no focal neurology in the limbs to suggest anything different. Moreover, SSRI discontinuation syndrome can result in paraesthesias rather than a general feeling of fatigue and weakness.

Mydriasis is an incorrect option as SSRI discontinuation syndrome is not related to these pupillary changes; in fact, the serotonin syndrome caused by taking too much SSRI can result in this. The stem also clearly states these pupils have been dilated since a young age making congenital mydriasis the most likely diagnosis in this case.

Discuss (2) | Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known

pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions
- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms
- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

Next question

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NICE 2 6

2022 Depression in adults: treatment and management

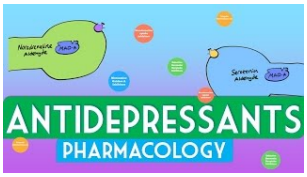
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Media



Antidepressants

Speed Pharmacology - YouTube 30 2



Antidepressants Pharmacology

Soton Brain Hub - YouTube 9 3

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Question 25 of 117

A 90-year-old woman with no past medical history presents with increasing forgetfulness. Her daughter is worried that over the last four weeks her mother has been forgetting her grandchildren's names and stories from her upbringing. The patient states that she has had a loss of appetite, sometimes forgetting if she has eaten, is not getting good quality sleep and is angry with her daughter for taking her to the doctors. She sometimes sees and hears her recently deceased husband.

The mini-mental test score is 17/30 and the patient is not happy with this result.

What is the most likely diagnosis in this case?

Alzheimer's dementia	20%
Depression	53%
Frontotemporal lobe dementia	8%
Lewy body dementia	17%
Paraphrenia	2%

Severe depression can mimic dementia but gives a pattern of global memory loss rather than short-term memory loss - this is called pseudodementia

Important for me Less important

Depression is the correct answer. This is a classical presentation of pseudodementia - the most common mimic for dementia amongst elderly patients. Although there is evidence of some cognitive impairment, the key feature present is a global memory loss affecting both short and longer-term memory, over a short history of four weeks with reluctance to engage with clinical assessment. These symptoms, coupled with the recent loss of her husband, indicate a severe reactive depressive episode.

Alzheimer's dementia is a key differential diagnosis for these symptoms given the patient's age, though it would tend to present more gradually, with selective impairment of short-term memory, and relative sparing of longer-term memories.

Frontotemporal lobe dementia tends to present with more florid frontal lobe symptoms, e.g. dramatic behavioural change or emotional disinhibition and is less likely than depression in this instance.

Lewy body dementia shares some features of this case, including visual hallucinations and impaired cognition. However, the specific hallucination of the patient's husband is more likely related to a grief reaction and depression, which is also favoured by the relatively short symptom course. Question stems describing Lewy body dementia will often also give some hint towards a movement disorder.

Paraphrenia is incorrect as this disorder tends to manifest as (often persecutory) audiovisual hallucinations in older patients, rather than the cognitive impairment seen in this case. The isolated hallucination of this patient's husband is also more in keeping with a normal grief response than paraphrenia.

Discuss (4) Improve

Next question

Depression vs. dementia

Factors suggesting diagnosis of depression over dementia

- short history, rapid onset
- biological symptoms e.g. weight loss, sleep disturbance
- patient worried about poor memory
- reluctant to take tests, disappointed with results
- mini-mental test score: variable
- global memory loss (dementia characteristically causes recent memory loss)

Next question

Textbooks

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Question 26 of 117

A 84-year-old patient is brought to see you by his wife as she is worried about hallucinations he has been experiencing. She reports that he regularly sees cats walking around the house although they have never owned a cat. He is otherwise well in himself with no other concerns and does not seem troubled by the visions. He has a past medical history of hypertension, diabetes and cataracts and drinks approximately 20 units of alcohol per week.

What is the most likely diagnosis?

Schizophrenia	5%
Parkinson's disease	1%
Alzheimer's disease	2%
Alcohol excess	8%
Charles-Bonnet Syndrome	83%

Patients with Charles-Bonnet syndrome experience persistent or recurrent complex visual or auditory hallucinations however generally have full insight into their condition

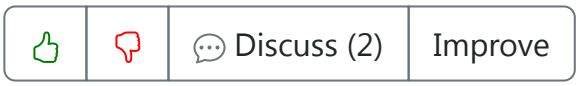
Important for me Less important

The correct answer is Charles-Bonnet Syndrome. This classically presents as recurrent visual or auditory hallucinations in patients with failing eyesight. It is thought that as the brain receives less visual stimulus than it is used to, it begins to fill in the gaps with previously stored images. Hallucinations can either be simple as in patterns or lines or complex as in people or animals. They are usually pleasant hallucinations and most patients retain insight. In this patient with a history of cataract Charles-Bonnet syndrome is most likely.

Whilst hallucinations can occur in both Alzheimer's Disease and Parkinson's Disease, there is nothing in the history to suggest any problems with memory or a tremor, making 2 and 4 unlikely. Likewise other than hallucinations there is no further evidence of schizophrenia in particular no 1st rank symptoms such as delusions, thought insertion, removal or broadcasting. Additionally patients with Alzheimer's tend to experience auditory as opposed to visual hallucinations.

Whilst 20 units of alcohol a week is over the revised recommend weekly intake it is unlikely

significant enough to cause any serious medical complications. Furthermore there is nothing else in the history to suggest alcoholism as a cause of his symptoms.



Next question

Charles-Bonnet syndrome ★

Charles-Bonnet syndrome (CBS) is characterised by persistent or recurrent complex hallucinations (usually visual or auditory), occurring in clear consciousness. This is generally against a background of visual impairment (although visual impairment is not mandatory for a diagnosis). Insight is usually preserved. This must occur in the absence of any other significant neuropsychiatric disturbance.

Risk factors include:

- Advanced age
- Peripheral visual impairment
- Social isolation
- Sensory deprivation
- Early cognitive impairment

CBS is equally distributed between sexes and does not show any familial predisposition. The most common ophthalmological conditions associated with this syndrome are age-related macular degeneration, followed by glaucoma and cataract.

Well-formed complex visual hallucinations are thought to occur in 10-30 per cent of individuals with severe visual impairment. Prevalence of CBS in visually impaired people is thought to be between 11 and 15 per cent.

Around a third find the hallucinations themselves an unpleasant or disturbing experience. In a large study published in the British Journal of Ophthalmology, 88% had CBS for 2 years or more, resolving in only 25% at 9 years (thus it is not generally a transient experience).

Cox (2014) Negative outcome Charles Bonnet Syndrome. Br J Ophthalmol.

Next question



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Question 27 of 117

A 75-year-old woman is seen by her GP with concerns over her memory. She is extremely worried that she cannot remember recent conversations or events; her husband confirms they have repetitive conversations. This has been going on for five weeks and started suddenly following the death of the patient's sister. Over the same period, she has had low mood and energy, a reduced appetite and poor sleep. Despite her concern, the patient is reluctant to go to the memory clinic or take diagnostic tests for dementia.

What factor within the history would lead you to a diagnosis other than depression?

Memory loss of recent events	41%
Patient concern over memory loss	21%
Reluctance to engage in memory tests	14%
Short history	18%
Sleep disturbance	6%

Severe depression can mimic dementia but gives a pattern of global memory loss rather than short-term memory loss - this is called pseudodementia

Important for me Less important

The most likely diagnosis for this patient is depression. She has the core symptoms of low mood and low energy. In addition, she reports poor appetite and sleep quality. The trigger for her depression is likely the recent bereavement.

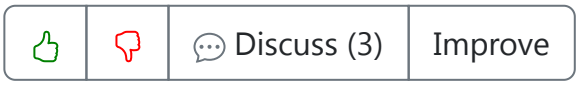
However, depression can mimic dementia. The key defining factor which distinguishes the two diagnoses is the pattern of memory loss: depression typically causes global memory loss, whereas dementia is more commonly a short-term memory loss. As such, the correct answer is **memory loss of recent events** because it is the only option which suggests a diagnosis of dementia rather than depression. One would expect this patient to describe a global memory loss involving short-term, long-term and working memory loss.

All of the other options are factors which are more in keeping with a diagnosis of depression rather than dementia.

Dementia would usually present over months to years' time-course, so the **short history** of 5 weeks is more suggestive of depression.

While certain types of dementia (such as Parkinson's dementia) are associated with **sleep disturbance**, it is much more common in depression.

The patient's **concern over memory loss** but **reluctance to engage in tests** are also factors which favour a diagnosis of depression over dementia.



Next question

Depression vs. dementia

Factors suggesting diagnosis of depression over dementia

- short history, rapid onset
- biological symptoms e.g. weight loss, sleep disturbance
- patient worried about poor memory
- reluctant to take tests, disappointed with results
- mini-mental test score: variable
- global memory loss (dementia characteristically causes recent memory loss)

Next question



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Question 28 of 117

A 36-year-old patient presents with nausea, headaches and palpitations. He has had multiple previous admissions with such symptoms over the past 2 years, each time no organic cause was found. What kind of disorder is this likely to represent?

Munchausen's syndrome	7%
Hypochondrial disorder	9%
Somatisation disorder	77%
Conversion disorder	6%
Dissociative disorder	1%

Unexplained symptoms

- **S**omatisation = **S**ymptoms
- hypo**C**hondria = **C**ancer

Important for me Less important

The correct answer is **Somatisation disorder**. This condition is characterised by the recurrent presentation of physical symptoms such as nausea, headaches, and palpitations in the absence of a detectable organic cause. These symptoms are not intentionally produced or feigned, distinguishing it from factitious disorders like Munchausen's syndrome. The patient may have multiple admissions over years due to these unexplained symptoms, which can cause significant distress and impairment in their daily life.

Munchausen's syndrome, also known as factitious disorder imposed on self, involves individuals deliberately producing or feigning physical or psychological symptoms. They do this to assume the sick role and gain attention or sympathy. However, there is no indication in the question that the patient is intentionally causing his own symptoms.

Hypochondrial disorder, now referred to as Illness Anxiety Disorder in DSM-5, involves a preoccupation with having or acquiring a serious illness. Patients with this condition misinterpret normal bodily sensations as signs of serious illness. However, they usually do not experience actual somatic symptoms like those described in the question.

Conversion disorder, also known as Functional Neurological Symptom Disorder (FNSD), typically presents with neurological symptoms such as paralysis, blindness, or seizures that cannot be explained by medical evaluation. The presented case does not describe any such neurological symptom.

Lastly, a **Dissociative disorder** involves disruptions or gaps in memory, awareness, identity or perception that are too extreme to be considered mere forgetfulness. These disorders often develop as a way to cope with trauma. The lack of any indications of such disruptions makes this option unlikely for the given case scenario.

Discuss (2) Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder

- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Functional neurological disorder (conversion disorder)

- typically involves loss of motor or sensory function
- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)
- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Dissociative disorder

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor

- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Next question

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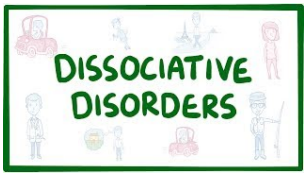
Links

Royal College of Physicians 5 2

2013 Functional neurological symptoms

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Media



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Question 29 of 117

An elderly patient in a nursing home is started on quetiapine due to persistent aggressive behaviour that has not responded to non-pharmacological approaches. Which of the following adverse effects do antipsychotics increase the risk of in elderly patients?

Atrial fibrillation	12%
Myocardial infarction	16%
Aspiration pneumonia	9%
Stroke	62%
Breast cancer	1%

Antipsychotics in the elderly - increased risk of stroke and VTE

Important for me Less important

The correct answer is **stroke**. Antipsychotic medications, such as quetiapine, can increase the risk of cerebrovascular events, including stroke, in elderly patients. This increased risk is particularly relevant for those with dementia-related psychosis. It is important to consider the potential benefits and risks when prescribing antipsychotics in this population.

Atrial fibrillation is not a known adverse effect of antipsychotic medications. While some case reports have suggested a possible association between antipsychotics and atrial fibrillation, there is insufficient evidence to establish a causal relationship.

Myocardial infarction has not been consistently linked to antipsychotic use in elderly patients. However, some antipsychotics can cause metabolic side effects such as weight gain, hyperglycemia, and dyslipidemia which may contribute to an increased risk of cardiovascular events over time. Nonetheless, this option does not specifically pertain to the direct adverse effects of antipsychotics on elderly patients.

The risk of **aspiration pneumonia** may be indirectly increased in elderly patients taking antipsychotic medications due to their sedative properties leading to reduced alertness and impaired swallowing reflexes. However, aspiration pneumonia itself is not considered a direct adverse effect of antipsychotic medications.

Lastly, **breast cancer** has not been shown to be directly associated with the use of antipsychotic medications in elderly patients. Some studies have suggested that certain atypical antipsychotics might increase prolactin levels which could theoretically lead to breast cancer development; however, this link remains inconclusive and requires further investigation.

Discuss (3) Improve

Next question

Antipsychotics

Antipsychotics are a group of drugs used in the management of schizophrenia and other forms of psychosis, mania and agitation. They are usually divided into typical and atypical antipsychotics. The atypical antipsychotics were developed due to the problematic extrapyramidal side-effects which are associated with the first generation of typical antipsychotics.

	Typical antipsychotics	**Atypical antipsychotics**
Mechanism of action	Dopamine D2 receptor antagonists, blocking dopaminergic transmission in the mesolimbic pathways	Act on a variety of receptors (D2, D3, D4, 5-HT)
Adverse effects	Extrapyramidal side-effects and hyperprolactinaemia common	Extrapyramidal side-effects and hyperprolactinaemia less common Metabolic effects
Examples	Haloperidol Chlorpromazine	Clozapine Risperidone Olanzapine

The rest of this section will focus on typical antipsychotics, with atypical antipsychotics covered elsewhere.

Extrapyramidal side-effects (EPSEs)

- Parkinsonism
- acute dystonia
  - sustained muscle contraction (e.g. torticollis, oculogyric crisis)
  - may be managed with procyclidine

- akathisia (severe restlessness)
- tardive dyskinesia (late onset of choreoathetoid movements, abnormal, involuntary, may occur in 40% of patients, may be irreversible, most common is chewing and pouting of jaw)

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Other side-effects

- antimuscarinic: dry mouth, blurred vision, urinary retention, constipation
- sedation, weight gain
- raised prolactin
  - may result in galactorrhoea
  - due to inhibition of the dopaminergic tuberoinfundibular pathway
- impaired glucose tolerance
- neuroleptic malignant syndrome: pyrexia, muscle stiffness
- reduced seizure threshold (greater with atypicals)
- prolonged QT interval (particularly haloperidol)

Next question

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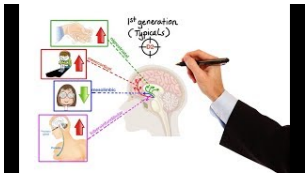
Psychoses and related disorders

Clinical Knowledge Summaries 2 1

Schizophrenia > Prescribing Information > Adverse effects

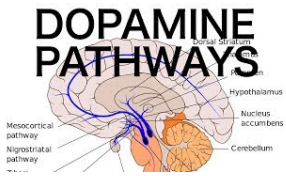
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Media



Antipsychotics

Speed Pharmacology - YouTube 38 0



Antipsychotics, Dopamine, and EPS

Dirty USMLE - YouTube 24 0



Video of patients with tardive dyskinesia

Abnormal Involuntary Movement Scale training video - YouTube 17 3

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Score: **17.2%**

1 ✕

2 ✕

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Question 30 of 117

A 24-year-old female is reviewed following a course of cognitive behaviour therapy for bulimia. She feels there has been no improvement in her condition and is interested in trying pharmacological treatments. Which one of the following is most suitable?

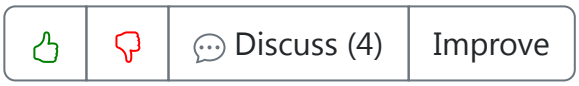
Low-dose citalopram	16%
Low-dose fluoxetine	49%
Low-dose amitriptyline	10%
High-dose amitriptyline	2%
High-dose fluoxetine	23%

The most suitable pharmacological treatment for a 24-year-old female with bulimia who has not responded to cognitive behaviour therapy is **high-dose fluoxetine**. Fluoxetine is a selective serotonin reuptake inhibitor (SSRI) and has been shown to be effective in reducing binge eating and purging behaviours associated with bulimia. The National Institute for Health and Care Excellence (NICE) guidelines recommend high-dose fluoxetine (60 mg daily) as the first-line pharmacological treatment for adults with bulimia nervosa.

Low-dose citalopram is not the best option in this case because, although it is also an SSRI, there is limited evidence supporting its use in treating bulimia. Furthermore, fluoxetine has more robust evidence and specific recommendations from NICE guidelines for the management of bulimia nervosa.

Low-dose fluoxetine may provide some benefit; however, it would not be as effective as high-dose fluoxetine. Studies have shown that higher doses of fluoxetine are more effective in reducing binge eating and purging behaviours compared to lower doses.

Low-dose amitriptyline and **high-dose amitriptyline** are both tricyclic antidepressants. Although they have demonstrated some efficacy in treating depression, their role in managing bulimia nervosa is less clear. Moreover, tricyclic antidepressants have a less favourable side effect profile compared to SSRIs like fluoxetine. Therefore, they are not considered the first-line treatment for bulimia nervosa according to UK guidelines.



Next question

Bulimia nervosa

Bulimia nervosa is a type of eating disorder characterised by episodes of binge eating followed by intentional vomiting or other purgative behaviours such as the use of laxatives or diuretics or exercising.

DSM 5 diagnostic criteria for a diagnosis of bulimia nervosa:

- recurrent episodes of binge eating (eating an amount of food that is definitely larger than most people would eat during a similar period of time and circumstances)
- a sense of lack of control over eating during the episode
- recurrent inappropriate compensatory behaviour in order to prevent weight gain, such as self-induced vomiting, misuse of laxatives, diuretics, or other medications, fasting, or excessive exercise.
    - recurrent vomiting may lead to erosion of teeth and Russell's sign - calluses on the knuckles or back of the hand due to repeated self-induced vomiting
- the binge eating and compensatory behaviours both occur, on average, at least once a week for three months.
- self-evaluation is unduly influenced by body shape and weight.
- the disturbance does not occur exclusively during episodes of anorexia nervosa.

Management

- referral for specialist care is appropriate in all cases
- NICE recommend bulimia-nervosa-focused guided self-help for adults
- If bulimia-nervosa-focused guided self-help is unacceptable, contraindicated, or ineffective after 4 weeks of treatment, NICE recommend that we consider individual eating-disorder-focused cognitive behavioural therapy (CBT-ED)
- children should be offered bulimia-nervosa-focused family therapy (FT-BN)
- pharmacological treatments have a limited role - a trial of high-dose fluoxetine is currently licensed for bulimia but long-term data is lacking

Next question



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Question 31 of 117

Rachel is a 45-year-old who has routine bloods for a health check. Blood tests show the following:

Na^+	125 mmol/l
K^+	4.3 mmol/l
Urea	5.3 mmol/l
Creatinine	60 µmol/l

She takes the following medications: sertraline, carbimazole, amlodipine, metformin, aspirin. Which of her medications is likely to be the cause of her hyponatraemia?

Aspirin	1%
Metformin	1%
Amlodipine	2%
Carbimazole	11%
Sertraline	84%

SSRIs are associated with hyponatraemia

Important for me Less important

Out of the list above sertraline is the medication known to cause hyponatraemia.

Other common drug causes of low sodium include: chlorpropramide, carbamazepine, selective serotonin reuptake inhibitor (SSRI) antidepressants, tricyclic antidepressants, lithium, MDMA/ecstasy, tramadol, haloperidol, vincristine, desmopressin, fluphenazine.

Discuss (3) Improve

Next question

SSRI: side-effects

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- hyponatraemia
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin: see above
- triptans: avoid SSRIs

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 30 years or at increased risk of suicide they should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness

- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

Next question

Textbooks

High-yield textbook

Extended textbook

Score: **16.1%**

1	✗
2	✗
3	✗
4	✗
5	✗
6	✗
7	✓
8	✗
9	✗
10	✗
11	✗
12	✗

PassMedicine

Question 32 of 117

You review a 55-year-old woman who has become dependant on temazepam, which was initially prescribed as a hypnotic. She is keen to end her addiction to temazepam and asks for help. Her current dose is 20mg on. What is the most appropriate strategy?

Switch to the equivalent zopiclone dose then slowly withdraw over the next 2 weeks	10%
Switch to the equivalent diazepam dose then slowly withdraw over the next 2 weeks	22%
Switch to the equivalent zopiclone dose then slowly withdraw over the next 2 months	14%
Switch to the equivalent chlordiazepoxide dose then slowly withdraw over the next 2 months	13%
Switch to the equivalent diazepam dose then slowly withdraw over the next 2 months	40%

The most appropriate strategy for this patient is to **switch to the equivalent diazepam dose then slowly withdraw over the next 2 months**. This approach is recommended because diazepam has a longer half-life than temazepam, which allows for a smoother and more gradual withdrawal process. Additionally, UK guidelines support using diazepam as the preferred benzodiazepine for withdrawal due to its long half-life and availability in lower doses, which facilitates gradual tapering.

The first option, **switch to the equivalent zopiclone dose then slowly withdraw over the next 2 weeks**, is not ideal because zopiclone is a non-benzodiazepine hypnotic (Z-drug) with similar effects on GABA receptors as benzodiazepines but with a different chemical structure. While it may be used as an alternative hypnotic agent in some cases, it is not suitable for benzodiazepine withdrawal due to its short half-life and lack of evidence supporting its use in this context.

Similarly, **switch to the equivalent zopiclone dose then slowly withdraw over the next 2 months** would also not be appropriate for the same reasons mentioned above. Zopiclone's short half-life and lack of evidence supporting its use in benzodiazepine withdrawal make it an unsuitable choice for this patient.

The option to **switch to the equivalent chlordiazepoxide dose then slowly withdraw over the next 2 months** is also not ideal. Although chlordiazepoxide has a longer half-life than temazepam and can be used for alcohol withdrawal management, it is not recommended for benzodiazepine withdrawal due to limited evidence supporting its efficacy compared to diazepam.

In conclusion, the best course of action in this case would be to switch the patient from temazepam to an equivalent dose of diazepam and then gradually taper the dose over a period of 2 months. This approach is supported by UK guidelines and offers the patient the best chance of successfully withdrawing from benzodiazepine dependence.

Discuss (4) Improve

Next question

Benzodiazepines

Benzodiazepines enhance the effect of the inhibitory neurotransmitter gamma-aminobutyric acid (GABA) by increasing the **frequency** of chloride channels. They therefore are used for a variety of purposes:

- sedation
- hypnotic
- anxiolytic
- anticonvulsant
- muscle relaxant

Patients commonly develop a tolerance and dependence to benzodiazepines and care should therefore be exercised on prescribing these drugs. The Committee on Safety of Medicines advises that benzodiazepines are only prescribed for a short period of time (2-4 weeks).

The BNF gives advice on how to withdraw a benzodiazepine. The dose should be withdrawn in steps of about 1/8 (range 1/10 to 1/4) of the daily dose every fortnight. A suggested protocol for patients experiencing difficulty is given:

- switch patients to the equivalent dose of diazepam
- reduce dose of diazepam every 2-3 weeks in steps of 2 or 2.5 mg
- time needed for withdrawal can vary from 4 weeks to a year or more

If patients withdraw too quickly from benzodiazepines they may experience benzodiazepine withdrawal syndrome, a condition very similar to alcohol withdrawal syndrome. This may occur up to 3 weeks after stopping a long-acting drug. Features include:

- insomnia
- irritability
- anxiety
- tremor

- loss of appetite
- tinnitus
- perspiration
- perceptual disturbances
- seizures

$GABA_A$ drugs

- benzodiazipines increase the **frequency** of chloride channels
- barbiturates increase the **duration** of chloride channel opening

Frequently **Ben**d - **Dur**ing **Barb**eque

...or...

Barbi**durat**es increase **durat**ion & **Fre**ndodiazepines increase **fre**quency

Next question

Textbooks

High-yield textbook

Extended textbook

Media

Benzodiazepines, bariburates and hypnotics (made easy)

Speed Pharmacology - YouTube 11 3

PassMedicine

Question 33 of 117

A 69-year-old woman who is a retired teacher was living with her daughter and granddaughter. The patient and the family reported a 6-month history of a lack of energy, reduced interest in activities, and worsening agitation together with sleep disturbances following the loss of her foster children. They felt as if she was behaving out of character by being indecisive and restless.

What is this patient suffering from?

Dementia	1%
Depression	77%
Generalised anxiety disorder	4%
Post-traumatic stress disorder	17%
Psychosis	1%

Elderly patients with depression are less likely to complain of low mood and instead may present with health anxiety, agitation and sleep disturbance

Important for me Less important

Depression in elderly patients presents atypically. They are less likely to complain of low mood and instead may present with health anxiety, agitation and sleep disturbance. Sleep disturbance, fatigue, psychomotor retardation, loss of interest in living, and hopelessness about the future may be more prevalent in late-life depression than in depression in younger or middle-aged adults.

Dementia is a decline in memory and other mental abilities as people grow older. It can cause memory problems, particularly remembering recent events, reduced concentration, personality or behaviour changes, apathy and withdrawal and loss of ability to do everyday tasks. Most of these signs are not present in this case, making dementia incorrect here.

Generalised anxiety disorder (GAD) is characterised by at least 6 months of excessive uncontrollable worry accompanied by symptoms of motor tension and vigilance and scanning. As with other anxiety disorders, GAD is less prevalent in older adults than younger adults and is incorrect here.

Post-traumatic stress disorder (PTSD) is less prevalent in older adults who report more somatic complaints such as appetite, sleep, or memory problems and fewer PTSD symptoms (especially arousal and numbing symptoms); they also report less depression and guilt than younger adults. This is therefore the incorrect answer due to the absence of these features.

Psychosis or late-onset psychotic symptoms may also result from a psychiatric cause (e.g., schizophrenia, delusional disorder, depression, bipolar disorder). Patients with a history of thought or mood disorders may have a reemergence of symptoms later in life as part of a remitting and relapsing course. No psychotic symptoms or features are reported in this case.

Discuss (2) Improve

Next question

Depression in older people

Older patients are less likely to complain of depressed mood

Features

- physical complaints (e.g. hypochondriasis)
- agitation
- insomnia

Management

- SSRIs are first line (adverse side-effect profile of TCAs more of an issue in the elderly)

Next question

Textbooks

High-yield textbook

PassMedicine

Question 34 of 117

A 65-year-old man is admitted to the hospital after being found at home in a confused state. He is unable to explain his condition but states that he was admitted for 10 days last month despite records showing his last admission to be 7 months ago. He is unable to recall what secondary school he attended and, after 1 week on the ward, he does not recognise his main doctor's face. He has a background of hypertension, ischemic stroke and alcoholic liver disease.

Examination shows normal tone, upgoing plantar reflexes on the right and a broad-based gait. There are bilateral cranial nerve 6 (CN 6) palsies associated with nystagmus.

What is the likely diagnosis in this patient?

Brain tumor	7%
Korsakoff's syndrome	67%
Lewy body dementia	5%
Transient global amnesia	5%
Vascular dementia	15%

Korsakoff's syndrome is a complication of Wernicke's encephalopathy. It's features include: anterograde amnesia, retrograde amnesia, and confabulation

Important for me Less important

This patient has the triad of confusion, ataxia and ophthalmoplegia, as well as anterograde and retrograde amnesia with confabulation. This is suggestive of Wernicke's encephalopathy that has progressed to **Korsakoff's syndrome**. Wernicke's encephalopathy is a neurological condition due to longstanding thiamine (vitamin B1) deficiency, commonly due to chronic alcohol abuse or malnutrition. It manifests as the triad of confusion, ataxia (broad-based gait) and oculomotor dysfunction (seen in this patient as CN 6 palsies and nystagmus). A known complication of untreated Wernicke's encephalopathy is Korsakoff's syndrome, which manifests as anterograde and retrograde amnesia as well as confabulation (a patient unconsciously makes up stories to fill a gap in their memory) such as this patient thinking he was admitted to the ward the previous week.

Given that this patient has the triad of Wernicke's encephalopathy and symptoms of Korsakoff's

syndrome on a background of alcohol abuse, it makes Korsakoff's syndrome more likely. **Brain tumours** most commonly present with early signs of increased intracranial pressure (headache, vomiting) and focal neurological deficits.

This patient's symptoms are not suggestive of **Lewy body dementia**. Lewy body dementia can be diagnosed by a patient with decreased cognition having 2 or more of the following symptoms: parkinsonism, visual hallucination, waxing-and-waning levels of consciousness and rapid-eye-movement (REM) sleep behaviour disorder.

Transient global amnesia involves retrograde and anterograde amnesia occurring to an individual following a stressful event and lasting commonly between 2-8 hours, but less than 24 hours. This patient's symptoms and history suggest Korsakoff's syndrome.

Vascular dementia presents with a step-wise decline in cognition, with early deficits in executive function. It does not cause bilateral CN 6 palsies, nystagmus and ataxia.

Discuss (1) Improve

Next question

Korsakoff's syndrome

Overview

- marked memory disorder often seen in alcoholics
- thiamine deficiency causes damage and haemorrhage to the mammillary bodies of the hypothalamus and the medial thalamus
- in often follows on from untreated Wernicke's encephalopathy

Features

- anterograde amnesia: inability to acquire new memories
- retrograde amnesia
- confabulation

Next question

Textbooks

High-yield textbook

Extended textbook

Media

Wernicke-Korsakoff syndrome

Osmosis - YouTube 6 1

Thiamine Deficiency (Vitamin B1)

Pixorize - YouTube 2 2

Report broken media

Score: **17.6%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗
10 ✗
11 ✗
12 ✗
13 ✗

PassMedicine

Question 35 of 117

A 46-year-old woman presents with ongoing urinary incontinence. Episodes occur when she coughs or laughs. Symptoms have become particularly noticeable since giving birth to her last child. She has no significant past medical history and takes no regular medications.

After declining initial conservative forms of treatment, she is offered medication to help control the symptoms.

What is the mechanism of action of this medication?

Activation of beta-3 receptors	5%
Inhibition of muscarinic acetylcholine receptors	47%
Inhibition of serotonin and noradrenaline reuptake	35%
Selective inhibition of noradrenaline reuptake	6%
Selective inhibition of serotonin reuptake	6%

Duloxetine mechanism of action = serotonin and noradrenaline reuptake inhibitor

Important for me Less important

This patient is experiencing stress incontinence, characterised by episodes of uncontrollable voiding when laughing or coughing. Pelvic floor muscle training is typically tried first, and surgical procedures may be offered. However, if a patient declines these interventions, duloxetine may be offered. This **inhibits serotonin and noradrenaline reuptake**. It increases the synaptic concentration of serotonin and noradrenaline within the pudendal nerve, leading to increased stimulation of muscle tissue in the urethral sphincter.

Inhibition of muscarinic acetylcholine receptors is incorrect. An example is oxybutynin. This is instead used to manage urge incontinence, which would present with uncontrollable leakage of urine following a sudden unexpected urge, rather than following laughing or coughing.

Activation of beta-3 receptors is incorrect - this refers to mirabegron. Like antimuscarinics, it is used for urge incontinence rather than stress incontinence.

Selective inhibition of noradrenaline reuptake is incorrect. Examples of drugs using this mechanism include atomoxetine and reboxetine. These are not routinely used in the management of urinary incontinence and are primarily used as antidepressants.

Selective inhibition of serotonin reuptake is incorrect. Examples of this class include fluoxetine and sertraline. These are not routinely used in the management of urinary incontinence.

Discuss (1) Improve

Next question

Serotonin and noradrenaline reuptake inhibitors

Serotonin and noradrenaline reuptake inhibitor (SNRI's) are a class of relatively new antidepressants. Inhibiting the reuptake increases the concentrations of serotonin and noradrenaline in the synaptic cleft leading to the effects. Examples include venlafaxine and duloxetine. They are used to treat major depressive disorders, generalised anxiety disorder, social anxiety disorder and panic disorder and menopausal symptoms.

Next question

Textbooks

High-yield textbook

Extended textbook

Media

PassMedicine

Question 36 of 117

A 35-year-old woman attends her GP for review. She says that she feels nothing is wrong but has attended at the insistence of her husband. When questioned further, she believes that a famous football player is in love with her.

She has no other delusions, nor hallucinations, nor any other obvious thought disorder. She has no insight into her belief about this football player.

What is this condition known as?

Capgras syndrome	6%
Charles Bonnet syndrome	4%
Cotard's syndrome	4%
De Clerambault's syndrome	71%
Othello syndrome	15%

Erotomania (De Clerambault's syndrome) is the presence of a delusion that a famous is in love with them, with the absence of other psychotic symptoms

Important for me Less important

The correct answer is De Clerambault's syndrome or erotomania. This is listed in DSM-5 as a type of delusional disorder, whereby the patient has a fixed belief that another individual, usually someone famous or of high social standing, is infatuated with them. Onset is often sudden and may last for several months. The condition is relatively rare and the evidence base for treatment is limited.

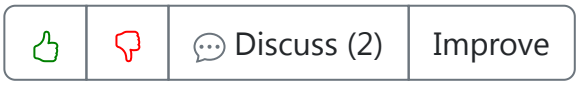
Capgras syndrome is a delusion where a patient believes that a friend, spouse or other close family member has been replaced by an identical impostor. It most commonly occurs in association with schizophrenia but has also been reported in patients with brain injury.

Charles Bonnet syndrome, also known as visual release hallucinations, is a type of visual disturbance and complex visual hallucinations in patients with partial or severe blindness. Shapes and grid-like patterns are often reported. Patients have full insight into the nature of the

hallucinations.

Cotard's syndrome is the persistent belief that the patient is dead, does not exist, is putrefying or has in some way lost their internal organs. It is again incredibly rare and so the evidence base is very limited.

Othello syndrome, named after Shakespeare's Othello, is a delusional disorder where the patient is preoccupied with the thought that their spouse is being unfaithful - without any real proof.



Next question

De Clerambault's syndrome

De Clerambault's syndrome, also known as erotomania, is a form of paranoid delusion with an amorous quality. The patient, often a single woman, believes that a famous person is in love with her.

Next question



Textbooks

High-yield textbook

Extended textbook

Score: **19.4%**

PassMedicine

Question 37 of 117

The sister of a 34-year-old man comes to see you in clinic as she is worried her brother may have a personality disorder. She reports her brother has always had a heightened opinion of himself and often expresses delusional thoughts regarding his potential for success as a banker believing he is capable of making millions. He does not seem perturbed by bringing others down in the process and appears pleased when he talks of others failures. She remembers he behaved similarly when they were growing up and was unsympathetic towards her when she had to resit her finals due to ill health.

What personality disorder is she describing?

Antisocial personality disorder	4%
Schizoid personality disorder	5%
Schizotypal personality disorder	4%
Borderline personality disorder	3%
Narcissistic personality disorder	85%

Narcisstic personalities lack empathy, have a sense of entitlement and take advantage of others to achieve their own need

Important for me Less important

The correct answer is narcissistic personality disorder. Whilst her brother may not actually qualify for having a personality disorder if his behaviour does not cause him personal distress or prevent him functioning socially, many of these features are seen in narcissistic behaviour. These patients have a heightened impression of self-importance and entitlement often believing they have unlimited abilities to succeed, become powerful or look beautiful. Additionally, they lack empathy and will happily take advantage of others to achieve their own need. In keeping with many personality disorders his symptoms appear to have been present since childhood and into adult life.

Patients with antisocial personality disorder also lack empathy or feelings of guilt/remorse. Similarly to narcissistic personalities they can be deceitful when wanting to achieve their own need. However, in contrast to narcissists they often fail to comply with rules or laws resulting in

criminal offences and are prone to getting into fights. As such the patient in the stem fits more closely with narcissistic personality disorder.

Patients with schizoid personality disorder tend to have a lack of interest in sexual interactions are cold and lack close friendships preferring to spend time alone. They are also indifferent to praise making this unlikely to be the correct answer.

Option 3 is incorrect. Patients with schizotypal personality disorder can have odd/eccentric beliefs or behaviour. They can also struggle to make friends and can be paranoid/suspicious as opposed to lacking empathy or having a sense of entitlement.

Option 5 is also incorrect, borderline personality disorder is characterized by emotional instability, impulsive behaviour, feelings of emptiness and recurrent attempts at self-harm.

Discuss (4) Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	**Cluster B: 'Dramatic, Emotional, or Erratic'**	**Cluster C: 'Anxious and Fearful'**
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others

- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values
- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning

- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

Textbooks

High-yield textbook

Extended textbook

Media



Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3

Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3

Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2



Cluster B personality disorders (antisocial, borderline, histrionic, narcissistic)

Osmosis - YouTube 11 5

PassMedicine

Question 38 of 117

A 26-year-old woman who works as an accountant has recently been fired by her manager, with the reason given being missing deadlines and a reduction in quality of work. She refuted this and says that her manager has never liked her and has wanted to get rid of her since day one.

She has told her close friends and family. Even though she has been reassured by them, she believes her family but actually thinks some of her close friends from work were conspiring with her manager to get rid of her.

Her mental state examination is broadly normal, apart from a preoccupation with her manager and close friends getting rid of her. Her family state she is easily insulted and has a conspiratorial nature.

What is the most likely diagnosis?

Borderline personality disorder	10%
Paranoid personality disorder	70%
Schizoid personality disorder	10%
Schizophrenia	2%
Schizotypal personality disorder	8%

Paranoid personality disorder may be diagnosed in patients who are overly sensitive and can be unforgiving if insulted, question loyalty of those around them and are reluctant to confide in others

Important for me Less important

Paranoid personality disorder is the correct option as she has taken the firing by her manager (for what sounds like good reasons) very badly and thinks it is a conspiracy enacted by her manager and close work friends. This is a classic paranoid personality disorder manifestation and the fact her family have seen her as someone who is easily insulted and can be paranoid.

Borderline personality disorder is incorrect as this disorder manifests as someone who is not generally paranoid, but more emotionally unstable, with difficult to control tempers and unstable

relationships and recurrent suicidal ideation.

Schizoid personality disorder is incorrect as this presents with less paranoia and more with a predilection for solitary activities and a lack of interests and companions.

Schizophrenia is incorrect as the case described above has a broadly normal mental state examination, which would not be true for schizophrenia which would present with delusions, hallucinations and disordered thought.

Schizotypal personality disorder is also incorrect because this presents in someone who has paranoid ideations, but also commonly has magical beliefs, ideas of reference and generally odd behaviours and speech; not seen in the above case on mental state examination or reported by the family.

Discuss Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	Cluster B: 'Dramatic, Emotional, or Erratic'	Cluster C: 'Anxious and Fearful'
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others

- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
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- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

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- More common in men;
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- Impulsiveness or failure to plan ahead;
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- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

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- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

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- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values
- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning

- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

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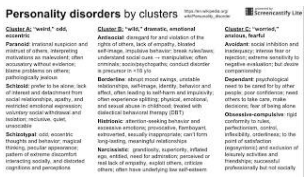
Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



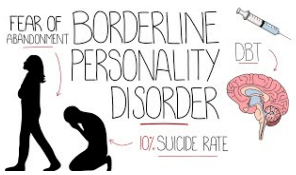
Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2

PassMedicine

Question 39 of 117

A 28-year-old man with known schizophrenia presents for his annual mental health review. His mental health has stabilised after the initiation of first-line treatment, however, his physical health seems to be deteriorating.

You realise that his body mass index has increased over the past 5 years from 24kg/m^2 to 32kg/m^2 and at the same time, his cholesterol and triglyceride levels have almost doubled.

What is the most likely responsible medication in this patient?

Aripiprazole	5%
Clozapine	10%
Olanzapine	75%
Quetiapine	4%
Risperidone	6%

Olanzapine has a higher risk than other atypicals for dyslipidemia and obesity

Important for me Less important

Olanzapine has a higher risk than other atypical anti-psychotics for dyslipidaemia and is a first-line agent in the treatment of schizophrenia.

All atypical antipsychotics can increase the risk of dyslipidaemia and obesity, however, there are varying degrees of risk depending on the agent.

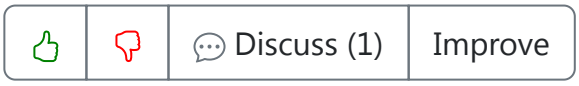
Aripiprazole is generally recognised as an atypical antipsychotic with a lower risk of causing dyslipidaemia.

Clozapine, one of the first atypical agents to be developed, does have a significant risk of dyslipidaemia. However, due to the significant risk of agranulocytosis, it is only used in patients resistant to other antipsychotic medication, not on the first presentation.

Quetiapine has a lower risk of dyslipidaemia when compared with clozapine and olanzapine,

however is seen to have a higher risk than aripiprazole and risperidone.

Risperidone is generally recognised as an atypical antipsychotic with a lower risk of causing dyslipidaemia.



Next question

Atypical antipsychotics

Atypical antipsychotics should now be used first-line in patients with schizophrenia, according to 2005 NICE guidelines. The main advantage of the atypical agents is a significant reduction in extrapyramidal side-effects.

Adverse effects of atypical antipsychotics

- weight gain
- clozapine is associated with agranulocytosis (see below)
- hyperprolactinaemia

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Examples of atypical antipsychotics

- clozapine
- olanzapine: higher risk of dyslipidemia and obesity
- risperidone
- quetiapine
- amisulpride
- aripiprazole: generally good side-effect profile, particularly for prolactin elevation

Next question



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NICE 3 0

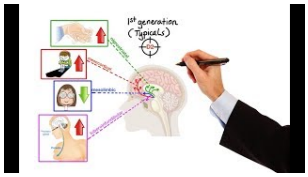
2014 Schizophrenia guidelines

BNF 1 1

Clozapine

Report broken link

Media



Antipsychotics

Speed Pharmacology - YouTube 31 1

Report broken media

Score: **17.9%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗

PassMedicine

Question 40 of 117

A 24-year-old male is admitted to the Emergency Department complaining of severe abdominal pain. On examination he is shivering and rolling around the trolley. He has previously been investigated for abdominal pain and no cause has been found. He states that unless he is given morphine for the pain he will kill himself. This is an example of:

Hypochondrial disorder	4%
Conversion disorder	3%
Malingering	66%
Munchausen's syndrome	15%
Somatisation disorder	13%

Lying or exaggerating for financial gain is malingering, for example someone who fakes whiplash after a road traffic accident for an insurance payment

Important for me Less important

This is difficult as the patient may well be an opiate abuser who is withdrawing. However, given the above options the most appropriate term to use is malingering as the patient is reporting symptoms with the deliberate intention of getting morphine

Discuss (3) Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder

- multiple physical SYMPTOMS present for at least 2 years

- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Functional neurological disorder (conversion disorder)

- typically involves loss of motor or sensory function
- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)
- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Dissociative disorder

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor
- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Next question

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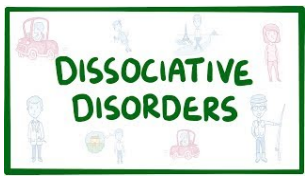
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2013 Functional neurological symptoms

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Media



Dissociative disorders

Osmosis - YouTube 19 1

Factitious disorder

Osmosis - YouTube 9 1



Somatic symptom disorder

Osmosis - YouTube 8 1

Report broken media

Score: **17.5%**

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Question 41 of 117

A 52-year-old man is brought into the emergency department having attempted to take his own life. He was found at home with empty packets of paracetamol by his side. He is still conscious. A history is taken from him to assess his risk of further attempts.

Which of the following is considered to be the strongest risk factor for successful suicide?

Being a female	5%
Being married	2%
Having five children	1%
Addiction to opiates	78%
Having never seen a General Practitioner	14%

A male with a history of alcohol or drug abuse and deliberate self harm should be considered to be at high risk of suicide

Important for me Less important

This question requires you to recall the major risk factors for suicide.

Being a female - This is not the most appropriate answer given the options available. In fact, being male is one of the most significant risk factors for suicide.

Being married - This is not the most appropriate answer given the options available. Having family support is an important protective factor for suicide.

Having five children - This is not the most appropriate answer given the options available. Having children at home is thought to be a protective factor.

Addiction to opiates - This is correct. Alcohol or drug misuse is one of the major risk factors for suicide.

Having never seen a General Practitioner - This is not the most appropriate answer given the

options available. Having a chronic mental or physical condition is however a risk factor for suicide.

Discuss (6) Improve

Next question

Suicide: risk factors

The risk stratification of psychiatric patients into 'high', 'medium' or 'low risk' is common in clinical practice. Questions based on a patient's suicide risk are therefore often seen. However, it should be noted that there is a paucity of evidence addressing the positive predictive value of individual risk factors. An interesting review in the BMJ (BMJ 2017;359:j4627) concluded that 'there is no evidence that these assessments can usefully guide decision making' and noted that 50% of suicides occur in patients deemed 'low risk'.

Whilst the evidence base is relatively weak, there are a number of factors shown to be associated with an increased risk of suicide

- male sex (hazard ratio (HR) approximately 2.0)
- history of deliberate self-harm (HR 1.7)
- alcohol or drug misuse (HR 1.6)
- history of mental illness
  - depression
  - schizophrenia: NICE estimates that 10% of people with schizophrenia will complete suicide
- history of chronic disease
- advancing age
- unemployment or social isolation/living alone
- being unmarried, divorced or widowed

If a patient has actually attempted suicide, there are a number of factors associated with an increased risk of completed suicide at a future date:

- efforts to avoid discovery
- planning
- leaving a written note
- final acts such as sorting out finances
- violent method

Protective factors

There are, of course, factors which reduce the risk of a patient committing suicide. These include

- family support
- having children at home
- religious belief

Next question

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Score: **17.1%**

1	✗
2	✗
3	✗
4	✗
5	✗
6	✗
7	✓
8	✗
9	✗
10	✗

PassMedicine

Question 42 of 117

A 54-year-old man presents with a variety of physical symptoms that have been present for the past 9 years. Numerous investigations and review by a variety of specialties have indicated no organic basis for his symptoms. This is an example of:

Munchausen's syndrome	6%
Hypochondrial disorder	12%
Dissociative disorder	1%
Somatisation disorder	77%
Conversion disorder	4%

Unexplained symptoms

- **S**omatisation = **S**ymptoms
- hypo**C**hondria = **C**ancer

Important for me Less important

Somatisation disorder is the correct answer as the patient is concerned about persistent, unexplained symptoms rather than an underlying diagnosis such as cancer (hypochondrial disorder). Munchausen's syndrome describes the intentional production of symptoms, for example self poisoning

Discuss (3) Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder

- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

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- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor
- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Next question

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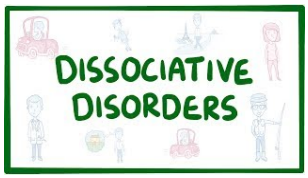
Links

Royal College of Physicians 5 2

2013 Functional neurological symptoms

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Media



Dissociative disorders

Osmosis - YouTube 19 1

Factitious disorder

Osmosis - YouTube 9 1



Somatic symptom disorder

Osmosis - YouTube 8 1

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Question 43 of 117

You review a 45-year-old man with a long history of bipolar disorder. According to NICE and National Patient Safety Agency (NPSA) guidelines, how often should lithium levels be checked once a stable dose has been achieved?

Every month	12%
Every 2 months	7%
Every 3 months	56%
Every 4 months	3%
Every 6 months	22%

Lithium levels should be checked every 3 months once a stable dose has been achieved

Important for me Less important

The correct answer is **Every 3 months**. According to NICE guidelines, once a stable dose of lithium has been achieved in a patient with bipolar disorder, serum lithium levels should be checked every 3 months. This is to ensure that the levels remain within the therapeutic range (0.6-1.0 mmol/L for long-term maintenance) and prevent toxicity.

The option **Every month** is incorrect because it suggests more frequent monitoring than necessary according to NICE guidelines. Frequent monitoring may cause unnecessary discomfort and inconvenience to the patient without significantly improving safety or efficacy.

Every 2 months is also incorrect as it still implies more frequent testing than recommended. While close monitoring may be necessary in certain situations such as changes in concurrent medication, renal function or hydration status, it's not required for routine management.

The suggestion of checking **Every 4 months** is not correct either as this would extend the interval between checks beyond what is recommended by NICE guidelines. This could potentially allow toxic levels to build up if the patient's absorption rate increases or elimination rate decreases for any reason.

Lastly, **Every 6 months** is also incorrect as it greatly exceeds the recommended time frame for

checks. This could put patients at risk of experiencing side effects from lithium toxicity before they are detected through routine screening.

Discuss (4) Improve

Next question

Lithium

Lithium is mood stabilising drug used most commonly prophylactically in bipolar disorder but also as an adjunct in refractory depression. It has a very narrow therapeutic range (0.4-1.0 mmol/L) and a long plasma half-life being excreted primarily by the kidneys.

Mechanism of action - not fully understood, two theories:

- interferes with inositol triphosphate formation
- interferes with cAMP formation

Adverse effects

- nausea/vomiting, diarrhoea
- fine tremor
- nephrotoxicity: polyuria, secondary to nephrogenic diabetes insipidus
- thyroid enlargement, may lead to hypothyroidism
- ECG: T wave flattening/inversion
- weight gain
- idiopathic intracranial hypertension
- leucocytosis
- hyperparathyroidism and resultant hypercalcaemia

Monitoring of patients on lithium therapy

- inadequate monitoring of patients taking lithium is common - NICE and the National Patient Safety Agency (NPSA) have issued guidance to try and address this. As a result it is often an exam hot topic
- when checking lithium levels, the sample should be taken 12 hours post-dose
- after starting lithium levels should be performed weekly and after each dose change until concentrations are stable
- once established, lithium blood level should 'normally' be checked every 3 months
- after a change in dose, lithium levels should be taken a week later and weekly until the levels are stable.
- thyroid and renal function should be checked every 6 months

- patients should be issued with an information booklet, alert card and record book

Next question

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Lithium

5 4

Report broken link

Score: **20.9%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗

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Question 44 of 117

Olanzapine is known to block D2 dopamine receptors. What other type of receptor does it mainly act on?

Alpha-adrenoceptors	5%
Acetylcholine receptors	10%
Serotonin receptors	49%
D1 dopamine receptors	18%
H1 histamine receptors	18%

Olanzapine, like other atypical antipsychotics, is known to block serotonin receptors (especially the 5-HT2 subtype) as well as D2 dopamine receptors

Discuss (3) Improve

Next question

Atypical antipsychotics

Atypical antipsychotics should now be used first-line in patients with schizophrenia, according to 2005 NICE guidelines. The main advantage of the atypical agents is a significant reduction in extrapyramidal side-effects.

Adverse effects of atypical antipsychotics

- weight gain
- clozapine is associated with agranulocytosis (see below)
- hyperprolactinaemia

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke

- increased risk of venous thromboembolism

Examples of atypical antipsychotics

- clozapine
- olanzapine: higher risk of dyslipidemia and obesity
- risperidone
- quetiapine
- amisulpride
- aripiprazole: generally good side-effect profile, particularly for prolactin elevation

Next question

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NICE 3 0

2014 Schizophrenia guidelines

BNF 1 1

Clozapine

Report broken link

Media

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Question 45 of 117

The risk of developing schizophrenia if one monozygotic twin is affected is approximately:

10%	6%
20%	13%
50%	64%
75%	7%
>95%	9%

The correct answer is **50%**. This is because the concordance rate for schizophrenia in monozygotic twins, who share 100% of their genetic material, is around 50%. This suggests that while genetics play a significant role in the development of schizophrenia, they are not the only factor involved. Environmental factors and other non-genetic influences also contribute to the risk of developing this condition.

The option **10%** is incorrect. This percentage represents a much lower risk than what is observed in monozygotic twins. It's closer to the risk seen in dizygotic (fraternal) twins or siblings, who share about 50% of their genetic material.

The option **20%** is also incorrect. Although it's higher than the risk for dizygotic twins or siblings, it's still significantly lower than the risk for monozygotic twins. This figure may represent the estimated heritability of schizophrenia from population studies.

The option **75%** overestimates the genetic influence on schizophrenia. While there's a strong genetic component to this disorder, environmental factors are also crucially important and this high figure doesn't account for their impact.

Lastly, the option of **>95%** greatly overstates the role of genetics in developing schizophrenia. If genetics were nearly entirely responsible for this disorder, we would expect virtually all monozygotic co-twins of individuals with schizophrenia to also have the condition - which isn't what research has shown.

Discuss (2) | Improve

Next question

Schizophrenia: epidemiology

The strongest risk factor for developing a psychotic disorder (including schizophrenia) is family history. Having a parent with schizophrenia leads to a relative risk (RR) of 7.5.

Risk of developing schizophrenia

- monozygotic twin has schizophrenia = 50%
- parent has schizophrenia = 10-15%
- sibling has schizophrenia = 10%
- no relatives with schizophrenia = 1%

Other selected risk factors for psychotic disorders include:

- Black Caribbean ethnicity - RR 5.4
- Migration - RR 2.9
- Urban environment- RR 2.4
- Cannabis use - RR 1.4

Next question

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NICE

2 0

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Question 46 of 117

A 19-year-old woman presents to the Emergency department having taken an overdose of 40x500mg paracetamol tablets and 400ml of vodka. She took the overdose because her boyfriend is going away for 2 weeks on a course and she fears abandonment. This is her 4th attendance with an overdose over the past 3 years. She is also known to the police after an episode of reckless driving / road rage. On arrival in the unit she is tearful and upset, and tells you she did it because her boyfriend is leaving her. Vital signs and general physical examination are normal apart from evidence of cutting her arms. She is given activated charcoal. Which of the following is the most likely diagnosis?

Bipolar disorder	4%
Anti-social personality disorder	7%
Borderline personality disorder	82%
Endogenous depression	5%
Drug induced psychosis	1%

Borderline personality disorder is marked out by instability in moods, behaviour and relationships.

Diagnosis is confirmed by the presence of at least 5 of the following symptoms;

1) Extreme reactionsincluding panic, depression, rage, or frantic actionsto abandonment, whether real or perceived

2) A pattern of intense and stormy relationships with family, friends, and loved ones, often veering from extreme closeness and love to extreme dislike or anger

3) Distorted and unstable self-image or sense of self, which can result in sudden changes in feelings, opinions, values, or plans and goals for the future (such as school or career choices)

4) Impulsive and often dangerous behaviours, such as spending sprees, unsafe sex, substance abuse, reckless driving, and binge eating

5) Recurring suicidal behaviours or threats or self-harming behaviour, such as cutting
Intense and highly changeable moods, with each episode lasting from a few hours to a few days

6) Chronic feelings of emptiness and/or boredom

7) Inappropriate, intense anger or problems controlling anger

8) Having stress-related paranoid thoughts or severe dissociative symptoms, such as feeling cut off from oneself, observing oneself from outside the body, or losing touch with reality.

There are no features consistent with endogenous depression, such as early morning wakening or loss of appetite, and no features consistent with hypomania such as pressure of speech, flight of ideas, or over exuberant behaviour. We are given no indication of drug abuse which may indicate drug induced psychosis. Anti-social personality disorder is characterised by a failure to conform to social norms, and repeated law breaking. There is consistent irresponsibility, impulsivity and disregard for both their own safety and that of others.

Discuss (3) Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	Cluster B: 'Dramatic, Emotional, or Erratic'	Cluster C: 'Anxious and Fearful'
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others
- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values

- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning
- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

Textbooks

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Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



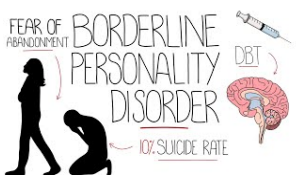
Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



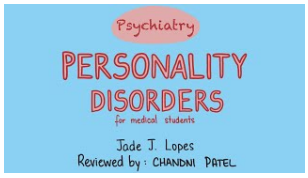
Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2



Cluster B personality disorders (antisocial, borderline, histrionic, narcissistic)

Osmosis - YouTube 11 5



Personality Disorders and DSH

MedFlix - YouTube 2 6

Report broken media

Score: **19.6%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗
10 ✗
11 ✗
12 ✗
13 ✗
14 ✗
15 ✗

PassMedicine

Question 47 of 117

A 32-year-old woman is brought to the Emergency department by the police. She was found preaching outside the local supermarket, telling people that she is god's disciple and has been sent to prevent them from wasting money. It transpires that she has also spent up to her limit on her bank card. She began treatment with fluoxetine some 3 weeks ago for reactive depression after splitting from her husband. A limited physical examination due to poor compliance is unremarkable, as is a routine blood screen.

Which of the following is the most likely diagnosis?

Psychotic depression	24%
Munchausen's syndrome	4%
Schizophrenia	13%
Viral encephalitis	0%
Mania	58%

Key features here include clear evidence of delusions of grandeur, coupled with starting treatment for fluoxetine some 3 weeks ago. Taken together these factors suggest possible mania. it is most likely to be related to selective serotonin reuptake inhibitor prescription for her depression.

Psychotic depression is unlikely given there are no delusions related to illness, loss of self-worth or other features usually expected. Schizophrenia is also unlikely given the absence of features such as auditory hallucinations or delusions of reference. Rather than being associated with agitation and hyperactivity, drowsiness and memory loss are more common features of viral encephalitis. The proximity to fluoxetine prescription, and the fact features of her illness fit so well with mania, make Munchausen's syndrome unlikely.

Discuss (7) | Improve

Next question

Hypomania vs. mania

Mania	Hypomania
• Lasts for at least 7 days - Causes severe functional impairment in social and work setting • May require hospitalization due to risk of harm to self or others • May present with **psychotic symptoms**	• A lesser version of mania • Lasts for < 7 days, typically 3-4 days. Can be high functioning and does not impair functional capacity in social or work setting • Unlikely to require hospitalization • Does not exhibit any psychotic symptoms

Therefore, the length of symptoms, severity and presence of psychotic symptoms (e.g. delusions of grandeur, auditory hallucinations) helps differentiates mania from hypomania.

The following symptoms are common to both hypomania and mania

Mood
- predominately elevated
- irritable

Speech and thought
- pressured
- flight of ideas: characterised by rapid speech with frequent changes in topic based on associations, distractions or word play
- poor attention

Behaviour
- insomnia
- loss of inhibitions: sexual promiscuity, overspending, risk-taking
- increased appetite

Next question

PassMedicine

Question 48 of 117

A man is admitted from the angiography suite after the cardiologist discovered severe triple vessel disease. He awaits transfer to a tertiary hospital for a coronary artery bypass graft. Around 48 hours into his admission you are called to see him as he has become confused, sweaty, tremulous, and agitated.

His observations show a pyrexia at 37.9ºC, heart rate of 105 bpm, and blood pressure 175/98mmHg.

You review his record and note a history of asthma, variceal bleed, and cirrhosis secondary to alcohol excess.

Given the likely diagnosis, what would be the most appropriate immediate intervention?

CT head	4%
Chlordiazepoxide	78%
IV antibiotics	3%
Intravenous hydration	5%
Pabrinex	9%

Chlordiazepoxide or diazepam are used in the treatment of delirium tremens/alcohol withdrawal

Important for me Less important

Alcohol withdrawal usually presents within hours to days of alcohol cessation. Symptoms include agitation, confusion, autonomic dysfunction (e.g. high blood pressure, sweating and pyrexia, raised heart rate), hallucinations, and tremors.

Chlordiazepoxide is the correct answer. Chlordiazepoxide, diazepam, and lorazepam are used to treat alcohol withdrawal.

IV antibiotics are not the best answer here. Although confusion, sweating, and agitation can be signs of potential infection when we take into account the alcohol history for this patient the most

likely diagnosis is delirium tremens as a result of alcohol withdrawal. If there were any concerns regarding infection it would not be unreasonable to give antibiotics, but this would not treat alcohol withdrawal. The blood pressure is high, rather than low as is often the case in infection, which is a hint.

Intravenous hydration is important if patients are diaphoretic with high insensible fluid losses. In this case, it is not the best answer as it would not treat the main problem which is alcohol withdrawal.

Pabrinex does have a role in the treatment of alcohol withdrawal in that it can help prevent the development of Wernicke's encephalopathy (manifested by confusion, ataxia, and ophthalmoplegia). It does not, however, have any effect on the symptoms of delirium tremens and does not reduce the risk of alcohol withdrawal-related seizures. Chlordiazepoxide is therefore the most correct answer.

CT head is not the best answer here. In this case, we have an agitated patient and this can be an indication for a CT head to exclude an intracranial cause. There is no history of trauma, no mention of any focal neurological finding, and there is a good alternative explanation for the presentation. CT head would therefore not be the best immediate intervention.

Discuss (2) Improve

Next question

Alcohol withdrawal

Mechanism

- chronic alcohol consumption enhances GABA mediated inhibition in the CNS (similar to benzodiazepines) and inhibits NMDA-type glutamate receptors
- alcohol withdrawal is thought to be lead to the opposite (decreased inhibitory GABA and increased NMDA glutamate transmission)

Features

- symptoms start at 6-12 hours: tremor, sweating, tachycardia, anxiety
- peak incidence of seizures at 36 hours
- peak incidence of delirium tremens is at 48-72 hours: coarse tremor, confusion, delusions, auditory and visual hallucinations, fever, tachycardia

Management

- patients with a history of complex withdrawals from alcohol (i.e. delirium tremens, seizures, blackouts) should be admitted to hospital for monitoring until withdrawals stabilised
- first-line: long-acting benzodiazepines e.g. chlordiazepoxide or diazepam. Lorazepam may be preferable in patients with hepatic failure. Typically given as part of a reducing dose protocol
- carbamazepine also effective in treatment of alcohol withdrawal
- phenytoin is said not to be as effective in the treatment of alcohol withdrawal seizures

Next question

Textbooks

High-yield textbook

Extended textbook

Score: **18.8%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗
10 ✗
11 ✗

PassMedicine

Question 49 of 117

A 35-year-old woman is convinced to attend her general practitioner by her mother. Her mother is concerned that her daughter is entirely convinced that a famous actor is in love with her, despite having never met or communicated with them.

On examination, the woman appears well. There is no evidence of hallucinations, confusion or abnormal speech patterns. Apart from the unshakeable belief that the famous actor is in love with her, the mental status examination is normal.

What is the correct description of this disorder?

Capgras syndrome	6%
De Clerambault's syndrome	75%
De Fregoli syndrome	7%
Ekbom syndrome	1%
Othello syndrome	11%

Erotomania (De Clerambault's syndrome) is the presence of a delusion that a famous is in love with them, with the absence of other psychotic symptoms

Important for me Less important

De Clerambault's syndrome is correct. This is the presence of a delusion that a famous person is in love with them, with the absence of other psychotic symptoms as is the case, here.

Capgras syndrome is incorrect. This is the delusion that a person closely related to the patient has been replaced by an impostor.

De Fregoli syndrome is incorrect. This is the delusion of identifying a familiar person in various people they encounter.

Othello syndrome is incorrect. This is a delusion of sexual infidelity on the part of a sexual partner.

Ekbom syndrome is incorrect. This is delusional parasitosis and describes the delusion of infestation.

Discuss (4) | Improve

Next question

De Clerambault's syndrome

De Clerambault's syndrome, also known as erotomania, is a form of paranoid delusion with an amorous quality. The patient, often a single woman, believes that a famous person is in love with her.

Next question

Textbooks

High-yield textbook

Extended textbook

Score: **20.4%**

1 ✗
2 ✗
3 ✗
4 ✗

PassMedicine

Question 50 of 117

An 80-year-old man presents with recurrent episodes of hallucinations. He describes often seeing faces smaller than normal or other objects out of proportion. He finds these episodes distressing although he says he knows they're not real. His past medical history includes macular degeneration and an episode of depression 20 years ago following the death of his wife. Neurological examination is unremarkable. What is the most likely diagnosis?

Schizophrenia	2%
Charles-Bonnet syndrome	92%
Psychotic depression	4%
Cerebral tumour	1%
Alzheimer's disease	1%

The most likely diagnosis in this case is **Charles-Bonnet syndrome**. This condition is characterized by complex visual hallucinations in individuals with visual impairment, such as macular degeneration, which the patient has. The hallucinations are often of faces or objects that are smaller or larger than normal. Importantly, patients with Charles-Bonnet syndrome maintain insight into the unreal nature of their hallucinations and do not have other cognitive or psychiatric symptoms.

Schizophrenia is an unlikely diagnosis in this case because the patient's age and presentation do not fit the typical pattern for schizophrenia. Schizophrenia usually presents earlier in life and involves a range of positive and negative symptoms beyond just hallucinations, such as delusions, disorganized thinking, and social withdrawal.

Psychotic depression can present with hallucinations; however, these are more commonly auditory rather than visual. Additionally, there is no indication in the patient's history that he is currently experiencing depressive symptoms. His previous episode of depression occurred 20 years ago following a significant life event (the death of his wife) and does not necessarily suggest a current depressive episode.

A **cerebral tumour** could potentially cause hallucinations; however, it would be less likely to cause recurrent episodes without any other accompanying neurological signs or symptoms. The patient's neurological examination was unremarkable, making this diagnosis less probable.

Finally, **Alzheimer's disease** is also an unlikely diagnosis given the patient's isolated symptomatology. While Alzheimer's disease can present with various neuropsychiatric symptoms including hallucinations, it would typically involve progressive cognitive decline and memory impairment as well. There is no mention of such features in this case.

In conclusion, based on the patient's age, history of macular degeneration, type of hallucination experienced (visual), and preserved insight into their unreal nature, Charles-Bonnet syndrome is the most likely diagnosis.

Discuss (1) Improve

Next question

Charles-Bonnet syndrome

Charles-Bonnet syndrome (CBS) is characterised by persistent or recurrent complex hallucinations (usually visual or auditory), occurring in clear consciousness. This is generally against a background of visual impairment (although visual impairment is not mandatory for a diagnosis). Insight is usually preserved. This must occur in the absence of any other significant neuropsychiatric disturbance.

Risk factors include:

- Advanced age
- Peripheral visual impairment
- Social isolation
- Sensory deprivation
- Early cognitive impairment

CBS is equally distributed between sexes and does not show any familial predisposition. The most common ophthalmological conditions associated with this syndrome are age-related macular degeneration, followed by glaucoma and cataract.

Well-formed complex visual hallucinations are thought to occur in 10-30 per cent of individuals with severe visual impairment. Prevalence of CBS in visually impaired people is thought to be between 11 and 15 per cent.

Around a third find the hallucinations themselves an unpleasant or disturbing experience. In a large study published in the British Journal of Ophthalmology, 88% had CBS for 2 years or more, resolving in only 25% at 9 years (thus it is not generally a transient experience).

Cox (2014) Negative outcome Charles Bonnet Syndrome. Br J Ophthalmol.

Next question

Textbooks

High-yield textbook

Extended textbook

Score: **22%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗
10 ✗
11 ✗
12 ✗
13 ✗
14 ✗
15 ✗

PassMedicine

Question 51 of 117

A 21-year-old woman presents to her GP, seeking help for anxiety. She finds her office-based job stressful, especially the aspects involving discussions with colleagues and bosses, fearing criticism. Outside of work, she often finds herself worrying about what her friends think of her, and increasingly forgoes social interaction with them as a result. She mentions that she thinks quite lowly of herself and does not have much self-esteem.

What best fits her diagnosis?

Antisocial personality disorder	11%
Avoidant personality disorder	76%
Borderline personality disorder	6%
Dependent personality disorder	5%
Obsessive-compulsive personality disorder	3%

Patients with avoidant personality disorder are fearful of criticism, being unliked, rejection and ridicule

Important for me Less important

This patient's history is a classic example of **avoidant personality disorder**. These patients generally avoid occupational, or social, activities with significant interpersonal contact, due to fear of criticism/rejection. They are preoccupied with ideas that they are being criticised or rejected in social situations and have an inferior view of themselves. Typically, they isolate themselves socially but actually crave social contact.

Patients with **antisocial personality disorder** display a failure to conform to social norms with respect to lawful behaviours - repeatedly performing acts that are grounds for arrest. These patients may use deception, repeatedly lie, and show impulsiveness and a failure to plan ahead; they typically demonstrate a lack of remorse for their actions.

Borderline personality disorder, also known as emotionally unstable personality disorder, would present differently. These patients make efforts to avoid real or imagined abandonment. They often have unstable interpersonal relationships and an unstable self-image. They demonstrate

impulsivity with regards to potentially self-damaging behaviours, such as substance abuse, sexual intercourse and spending. They may also display recurrent suicidal behaviour.

Dependent personality disorder presents with difficulties making decisions about everyday decisions without excessive reassurance from others. These patients have a need for others to assume responsibility for major areas of their lives. They generally display a lack of initiative and have unrealistic fears of being left to care for themselves. They typically seek out a new relationship as soon as a previous relationship ends.

Obsessive-compulsive personality disorder, as the name suggests, presents with a preoccupation with details, rules, lists and order - to the point that the key part of the actual activity itself is gone. These patients are typically dedicated to their work and efficiency, eliminating spare time activities. They are generally unwilling to delegate work to others, unless they can be sure that the others will perform the work exactly as they wish it to be done.

Discuss (1) Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	Cluster B: 'Dramatic, Emotional, or Erratic'	Cluster C: 'Anxious and Fearful'
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends

- Reluctance to confide in others
- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values

- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning
- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

Textbooks

High-yield textbook

Extended textbook

Media



Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



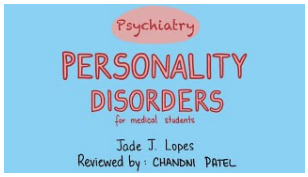
Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2



Cluster B personality disorders (antisocial, borderline, histrionic, narcissistic)

Osmosis - YouTube 11 5



Personality Disorders and DSH

MedFlix - YouTube 2 6

Report broken media

Score: **21.6%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗
10 ✗
11 ✗
12 ✗
13 ✗
14 ✗
15 ✗

PassMedicine

Question 52 of 117

A 33-year-old woman presents to her GP with a several-month history of anxiety with no clear trigger which is affecting her sleep and desire to interact with others. She feels restless and agitated. She denies any episodes of panic attacks. Her medical history is otherwise unremarkable.

Which of the following would be the most appropriate option to try first?

Amitriptyline	9%
Duloxetine	9%
Propranolol	16%
Sertraline	60%
Venlafaxine	7%

SSRIs are the first-line pharmacological therapy for generalised anxiety disorder

Important for me Less important

The correct answer is sertraline. The picture being described here is that of generalised anxiety disorder, given the symptoms and chronic duration. NICE guidance recommends a selective serotonin reuptake inhibitor (SSRI) as a first-line pharmacological option for this condition. Out of the available SSRIs, NICE suggest sertraline as a preferable initial choice.

Amitriptyline is a tricyclic antidepressant and would be a second- or third-line agent if other methods failed. Generally, SSRIs and serotonin-noradrenaline reuptake inhibitors (SNRIs) are recommended prior to trying TCAs, due to their larger side effect profile.

Duloxetine is an SNRI and would be a suitable alternative if sertraline did not work. However, first-line, sertraline should be tried.

Propranolol is a beta-blocker and used as needed to control acute flare-ups of anxiety and panic attacks. This patient denies such acute episodes and so would not be as useful; propranolol should be prescribed in conjunction with an agent like sertraline, not used as monotherapy.

Venlafaxine is another SNRI, like duloxetine, and would be another suitable alternative to try if sertraline were not effective.



Next question

Generalised anxiety disorder and panic disorder

Anxiety is a common disorder that can present in multiple ways. NICE define the central feature as an 'excessive worry about a number of different events associated with heightened tension.'

Always look for a potential physical cause when considering a psychiatric diagnosis. In anxiety disorders, important alternative causes include hyperthyroidism, cardiac disease and medication-induced anxiety (NICE). Medications that may trigger anxiety include salbutamol, theophylline, corticosteroids, antidepressants and caffeine

Management of generalised anxiety disorder (GAD)

NICE suggest a step-wise approach:

- step 1: education about GAD + active monitoring
- step 2: low-intensity psychological interventions (individual non-facilitated self-help or individual guided self-help or psychoeducational groups)
- step 3: high-intensity psychological interventions (cognitive behavioural therapy or applied relaxation) or drug treatment. See drug treatment below for more information
- step 4: highly specialist input e.g. Multi agency teams

Drug treatment

- NICE suggest sertraline should be considered the first-line SSRI
- if sertraline is ineffective, offer an alternative SSRI or a serotonin-noradrenaline reuptake inhibitor (SNRI)
    - examples of SNRIs include duloxetine and venlafaxine
- If the person cannot tolerate SSRIs or SNRIs, consider offering pregabalin
- interestingly for patients under the age of 30 years NICE recommend you warn patients of the increased risk of suicidal thinking and self-harm. Weekly follow-up is recommended for the first month

Management of panic disorder

Again a stepwise approach:

- step 1: recognition and diagnosis
- step 2: treatment in primary care - see below
- step 3: review and consideration of alternative treatments
- step 4: review and referral to specialist mental health services
- step 5: care in specialist mental health services

Treatment in primary care

- NICE recommend either cognitive behavioural therapy or drug treatment
- SSRIs are first-line. If contraindicated or no response after 12 weeks then imipramine or clomipramine should be offered

Next question

Textbooks

High-yield textbook

Extended textbook

Links

NICE

1 0

2011 Generalised anxiety disorder and panic disorder guidelines

Report broken link

Media

Anxiety Disorders for Medical Students

MedFlix - YouTube

PassMedicine

Question 53 of 117

A 29-year-old woman is reviewed by her psychiatrist. She has been on citalopram for 4 years for depression.

The patient reports a significant improvement in her symptoms recently having started a new job and regular participation in cognitive behaviour therapy. As a result, she wishes to stop taking her medications. You advise her that to discontinue her medication she should slowly reduce the dose over a period of time.

When should the patient be advised to start reducing the dose of citalopram?

2 weeks following remission of symptoms	3%
3 months following remission of symptoms	4%
4 weeks following remission of symptoms	18%
6 months following remission of symptoms	72%
Immediately	3%

Antidepressants should be continued for at least 6 months after remission of symptoms to decrease risk of relapse

Important for me Less important

Selective serotonin reuptake inhibitors (SSRIs) such as citalopram are considered first-line treatment for depression. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least **6 months after remission** before slowly reducing and then discontinuing the medication. This is to prevent the risk of relapse of symptoms.

A significant number of patients experience a relapse of their depressive symptoms following the discontinuation of antidepressants. Discontinuing antidepressants sooner than the recommended 6 months following symptom remission has been associated with an increased risk of relapse and is therefore not advised.

Discuss (2) Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

Next question

Textbooks

High-yield textbook

Extended textbook

Links

NICE

2022 Depression in adults: treatment and management

2 6

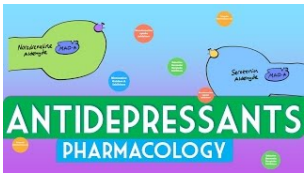
Report broken link

Media



Antidepressants

Speed Pharmacology - YouTube 30 2



Antidepressants Pharmacology

Soton Brain Hub - YouTube 9 3

Report broken media

Score: **20.8%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗

PassMedicine

Question 54 of 117

A 54-year-old man is brought to the emergency department by ambulance, after being found confused by members of the public for the fifth time in the past month. Upon review, he tells you that he came here by bicycle after spending the afternoon with his friends doing shopping, and then later tells you he spent today in the pub with his new dog. He smells strongly of alcohol and you notice a near-empty bottle of unlabelled spirit with him.

On examination, he has an ataxic gait, dysdiadochokinesia and horizontal nystagmus.

When you go back later to see him, he has forgotten your previous interaction.

Which of the following explains his signs and symptoms?

Cerebellar ataxia	3%
Ethanol intoxication	5%
Korsakoff's syndrome	63%
Methanol toxicity	2%
Wernicke's encephalopathy	28%

Korsakoff's syndrome is a complication of Wernicke's encephalopathy. It's features include: anterograde amnesia, retrograde amnesia, and confabulation

Important for me Less important

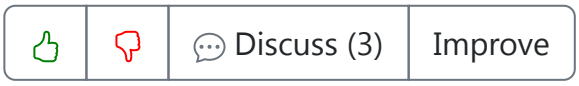
This man has presented to the emergency department with cerebellar signs, eye signs, amnesia and is changing his story about recent events. He is also carrying around a tell-tale bottle of alcohol. Wernicke's encephalopathy alone would account for most, though not all of his symptoms. The classic triad for this is ophthalmoplegia (often a lateral rectus palsy and/or horizontal nystagmus), confusion and ataxia (though any cerebellar signs can be present). However, this man also has features that make Korsakoff's syndrome the unifying diagnosis: anterograde amnesia (he forgets your interaction) and confabulation (he makes up two different stories about his day).

Whilst cerebellar ataxia, caused by alcohol use, haemorrhage, tumour, infection or other cause,

accounts for some of this man's symptoms, it does not account for the specific symptoms that point to Korsakoff's disease.

Alcohol intoxication might produce unsteadiness and confusion or changing stories, but the specific neurological signs point away from this.

Methanol toxicity is a possible cause of ataxia, poor coordination and confusion. It may even contaminate unregulated alcohol products. However, it would likely also cause vomiting, abdominal pain, decreased consciousness and can progress to respiratory failure.



Next question

Korsakoff's syndrome

Overview

- marked memory disorder often seen in alcoholics
- thiamine deficiency causes damage and haemorrhage to the mammillary bodies of the hypothalamus and the medial thalamus
- in often follows on from untreated Wernicke's encephalopathy

Features

- anterograde amnesia: inability to acquire new memories
- retrograde amnesia
- confabulation

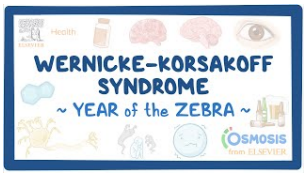
Next question

Textbooks

High-yield textbook

Extended textbook

Media



Wernicke-Korsakoff syndrome

Osmosis - YouTube 6 1



Thiamine Deficiency (Vitamin B1)

Pixorize - YouTube 2 2

Report broken media

Score: **20.4%**

1	✗
2	✗
3	✗
4	✗
5	✗
6	✗
7	✓
8	✗
9	✗
10	✗

PassMedicine

Question 55 of 117

Which class of drug have the Medicines and Healthcare products Regulatory Agency warned may be associated with an increased risk of venous thromboembolism in elderly patients?

Tricyclic antidepressants	18%
5HT3 antagonists	9%
Third generation cephalosporins	1%
Benzodiazepines	2%
Atypical antipsychotics	70%

Antipsychotics in the elderly - increased risk of stroke and VTE

Important for me Less important

The correct answer is **Atypical antipsychotics**. The Medicines and Healthcare products Regulatory Agency (MHRA) in the UK has issued a warning about an increased risk of venous thromboembolism (VTE) in elderly patients using atypical antipsychotics. These drugs, which include clozapine, risperidone, olanzapine, and quetiapine among others, are often prescribed for the management of schizophrenia and bipolar disorder. They act by blocking dopamine D2 receptors in the brain which helps to reduce psychotic symptoms. However, they can also cause hyperprolactinaemia and weight gain which may increase the risk of VTE.

Tricyclic antidepressants are not associated with an increased risk of VTE according to MHRA. These drugs work by inhibiting the reuptake of serotonin and norepinephrine into presynaptic neurons thereby increasing their concentration in the synaptic cleft and enhancing neurotransmission.

5HT3 antagonists, such as ondansetron or granisetron used mainly for nausea and vomiting, especially during chemotherapy, have not been linked with an increased risk of VTE. They work by blocking 5-HT3 receptors located peripherally on vagal nerve terminals and centrally in the chemoreceptor trigger zone of the area postrema.

Third generation cephalosporins, like ceftriaxone or ceftazidime used to treat various bacterial infections including *Pseudomonas aeruginosa*, do not pose an increased risk for VTE according to

MHRA guidelines. Their mechanism involves disrupting cell wall synthesis leading to bacterial cell death.

Lastly, **benzodiazepines**, such as diazepam or lorazepam used for anxiety disorders, sleep disorders or alcohol withdrawal symptoms, have not been associated with an elevated risk of VTE either. They enhance GABAergic neurotransmission leading to sedative, hypnotic, anxiolytic, muscle relaxant effects.

Discuss (4) Improve

Next question

Antipsychotics

Antipsychotics are a group of drugs used in the management of schizophrenia and other forms of psychosis, mania and agitation. They are usually divided into typical and atypical antipsychotics. The atypical antipsychotics were developed due to the problematic extrapyramidal side-effects which are associated with the first generation of typical antipsychotics.

	Typical antipsychotics	**Atypical antipsychotics**
Mechanism of action	Dopamine D2 receptor antagonists, blocking dopaminergic transmission in the mesolimbic pathways	Act on a variety of receptors (D2, D3, D4, 5-HT)
Adverse effects	Extrapyramidal side-effects and hyperprolactinaemia common	Extrapyramidal side-effects and hyperprolactinaemia less common Metabolic effects
Examples	Haloperidol Chlorpromazine	Clozapine Risperidone Olanzapine

The rest of this section will focus on typical antipsychotics, with atypical antipsychotics covered elsewhere.

Extrapyramidal side-effects (EPSEs)

- Parkinsonism
- acute dystonia

    - sustained muscle contraction (e.g. torticollis, oculogyric crisis)
    - may be managed with procyclidine
- akathisia (severe restlessness)
- tardive dyskinesia (late onset of choreoathetoid movements, abnormal, involuntary, may occur in 40% of patients, may be irreversible, most common is chewing and pouting of jaw)

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Other side-effects

- antimuscarinic: dry mouth, blurred vision, urinary retention, constipation
- sedation, weight gain
- raised prolactin
    - may result in galactorrhoea
    - due to inhibition of the dopaminergic tuberoinfundibular pathway
- impaired glucose tolerance
- neuroleptic malignant syndrome: pyrexia, muscle stiffness
- reduced seizure threshold (greater with atypicals)
- prolonged QT interval (particularly haloperidol)

Next question

Textbooks

High-yield textbook

Extended textbook

Links

BNF 1 0

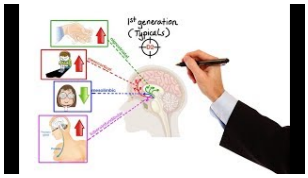
Psychoses and related disorders

Clinical Knowledge Summaries 2 1

Schizophrenia > Prescribing Information > Adverse effects

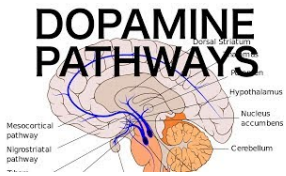
Report broken link

Media



Antipsychotics

Speed Pharmacology - YouTube 38 0



Antipsychotics, Dopamine, and EPS

Dirty USMLE - YouTube 24 0



Video of patients with tardive dyskinesia

Abnormal Involuntary Movement Scale training video - YouTube 17 3

Report broken media

Score: **20%**

1 ✕

PassMedicine

Question 56 of 117

A 44-year-old man presents to the emergency department with tremors and restlessness. He is visibly anxious and pacing up and down. He admits having last had 'a drink' 8 hours ago. He also describes having taken some morphine several hours prior, but cannot quantify this.

On examination, he is anxious and sweating. Physical observations are normal except for a heart rate of 118 bpm. Pupils are equal and reactive to light. A general tremor is noted.

What is the most appropriate first-line management?

Chlordiazepoxide	74%
Lorazepam	14%
Methadone	2%
Naloxone	9%
Phenytoin	0%

Alcohol withdrawal

- symptoms: 6-12 hours
- seizures: 36 hours
- delirium tremens: 72 hours

Important for me Less important

This patient is likely experiencing alcohol withdrawal. Initial symptoms, 6-12 hours after last consumption, include the features seen here - tremor, sweating, anxiety and tachycardia. Later features include seizures and delirium tremens. Patients presenting to hospital with features of alcohol withdrawal should be treated with long-acting benzodiazepines first-line, such as **chlordiazepoxide** or diazepam.

Lorazepam is a short-acting benzodiazepine and not as preferable for this patient. It may be more suitable for patients with a history of hepatic impairment.

Methadone is an opioid agonist used in the management of withdrawal from opioid addiction.

Although patients experiencing opioid addiction may present with similar symptoms, they typically experience nausea, vomiting, diarrhoea and rhinorrhoea, which are not seen here.

Naloxone is used in the management of opioid overdose. Rather than being agitated as in this scenario, the patient would be drowsy, have pinpoint pupils and potentially respiratory depression.

Phenytoin is an anticonvulsant. It is not typically recommended for alcohol withdrawal seizures as its effectiveness for these is questionable. It would not be appropriate here.

Discuss | Improve

Next question

Alcohol withdrawal ★

Mechanism

- chronic alcohol consumption enhances GABA mediated inhibition in the CNS (similar to benzodiazepines) and inhibits NMDA-type glutamate receptors
- alcohol withdrawal is thought to be lead to the opposite (decreased inhibitory GABA and increased NMDA glutamate transmission)

Features

- symptoms start at 6-12 hours: tremor, sweating, tachycardia, anxiety
- peak incidence of seizures at 36 hours
- peak incidence of delirium tremens is at 48-72 hours: coarse tremor, confusion, delusions, auditory and visual hallucinations, fever, tachycardia

Management

- patients with a history of complex withdrawals from alcohol (i.e. delirium tremens, seizures, blackouts) should be admitted to hospital for monitoring until withdrawals stabilised
- first-line: long-acting benzodiazepines e.g. chlordiazepoxide or diazepam. Lorazepam may be preferable in patients with hepatic failure. Typically given as part of a reducing dose protocol
- carbamazepine also effective in treatment of alcohol withdrawal
- phenytoin is said not to be as effective in the treatment of alcohol withdrawal seizures

Next question

PassMedicine

Question 57 of 117

A 18-year-old sprinter who is currently preparing for a national athletics meeting asks to see the team doctor due to an unusual sensation in his legs. He describes a numb sensation below his knee. On examination the patient there is apparent sensory loss below the right knee in a non-dermatomal distribution. The team doctor suspects a non-organic cause of his symptoms. This is an example of a:

Conversion disorder	61%
Hypochondrial disorder	2%
Somatisation disorder	25%
Malingering	7%
Munchausen's syndrome	4%

Functional neurological disorder (conversion disorder) - typically involves loss of motor or sensory function

Important for me Less important

The correct answer in this scenario is a **Conversion disorder**. Conversion disorder, also known as functional neurological symptom disorder, is a psychiatric condition where psychological distress is expressed through physical symptoms. In this case, the patient's numb sensation below his knee and the sensory loss in a non-dermatomal distribution suggest that there may not be an identifiable organic cause for his symptoms. Instead, these symptoms could be manifestations of underlying psychological stress or anxiety related to his upcoming national athletics meeting.

The first incorrect option is **Hypochondrial disorder**, now referred to as Illness Anxiety Disorder. This condition involves excessive worry about having a serious illness despite having no or only mild symptoms. The person may constantly seek medical reassurance and excessively research their perceived illness. In this case, the patient does not present with excessive worry about having an illness but rather reports an unusual sensation in his legs.

Somatisation disorder is another incorrect option. This condition involves multiple unexplained physical symptoms across different body systems, causing significant distress and impairment in daily functioning. These symptoms cannot be explained by any medical condition or substance

use. The patient in this scenario presents with isolated sensory loss below the knee, which does not fit the criteria for somatisation disorder.

The next incorrect option is **Malingering**. Malingering refers to intentionally feigning or exaggerating physical or psychological symptoms for external gain (e.g., avoiding work or obtaining financial compensation). While it might be possible that the athlete could have secondary motives for presenting with these symptoms, there is no indication in the given information that he has any external gain from doing so.

Finally, **Munchausen's syndrome**, now known as Factitious Disorder Imposed on Self, is also incorrect. This psychiatric condition involves a person deliberately producing or falsifying signs and symptoms of an illness to assume the sick role and receive attention or sympathy. In this case, there is no indication that the patient is intentionally producing his symptoms for attention or sympathy.

Discuss (5) | Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder

- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Functional neurological disorder (conversion disorder)

- typically involves loss of motor or sensory function
- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)
- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Dissociative disorder

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor
- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Next question

Textbooks

High-yield textbook

Extended textbook

Links

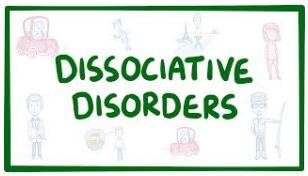
Royal College of Physicians

2013 Functional neurological symptoms

5 2

Report broken link

Media



Dissociative disorders

Osmosis - YouTube 19 1



Factitious disorder

Osmosis - YouTube 9 1



Somatic symptom disorder

Osmosis - YouTube 8 1

Report broken media

Score: **19.3%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗
10 ✗

PassMedicine

Question 58 of 117

A 58-year-old man is admitted with pneumonia. He drinks 20 units of alcohol per day. His liver function is normal.

Appropriately 12 hours into his admission he becomes unwell.

His observations are shown below:

- Respiratory rate 18 breaths/minute
- Oxygen saturations 96%
- Blood pressure 123/76 mmHg
- Heart rate 106 bpm.
- Capillary blood glucose 4.1 mmol/L

An ECG shows sinus tachycardia at a rate of 103 bpm.

On examination, he appears tremulous and sweaty and complains of feeling anxious.

What is the most appropriate management?

250ml 10% glucose IV	5%
Chlordiazepoxide regimen and regular high strength IM B vitamin replacement	78%
Regular high strength IM B vitamin replacement	2%
Stat dose of bisoprolol	1%
Stat dose of lorazepam and regular high strength IM B vitamin replacement	14%

Chlordiazepoxide or diazepam are used in the treatment of delirium tremens/alcohol withdrawal

Important for me Less important

Chlordiazepoxide regimen and regular high strength IM B vitamin replacement is correct. This patient is acutely withdrawing from alcohol. Symptoms usually begin 12 hours following

reduction/cessation of alcohol intake. This patient will be undergoing assisted alcohol withdrawal in the inpatient setting, and as such will require prophylaxis of Wernicke's encephalopathy also.

250ml 10% glucose IV is incorrect, as the patient is not hypoglycaemia.

Regular high strength IM B vitamin replacement alone is incorrect, as the patient will require a benzodiazepine regimen for alcohol withdrawal also.

Stat dose of bisoprolol is incorrect. The patient is in sinus tachycardia due to the alcohol withdrawal so bisoprolol will not treat the problem.

Stat dose of lorazepam and regular high strength IM B vitamin replacement is incorrect. Lorazepam or oxazepam are sometimes used in alcohol withdrawal where there is evidence of alcoholic liver disease but this patient has documented normal LFTs. Also, a stat dose would not be sufficient to treat his alcohol withdrawal and he will require a weaning regimen.

Discuss (2) Improve

Next question

Alcohol withdrawal

Mechanism

- chronic alcohol consumption enhances GABA mediated inhibition in the CNS (similar to benzodiazepines) and inhibits NMDA-type glutamate receptors
- alcohol withdrawal is thought to be lead to the opposite (decreased inhibitory GABA and increased NMDA glutamate transmission)

Features

- symptoms start at 6-12 hours: tremor, sweating, tachycardia, anxiety
- peak incidence of seizures at 36 hours
- peak incidence of delirium tremens is at 48-72 hours: coarse tremor, confusion, delusions, auditory and visual hallucinations, fever, tachycardia

Management

- patients with a history of complex withdrawals from alcohol (i.e. delirium tremens, seizures, blackouts) should be admitted to hospital for monitoring until withdrawals stabilised
- first-line: long-acting benzodiazepines e.g. chlordiazepoxide or diazepam. Lorazepam may be preferable in patients with hepatic failure. Typically given as part of a reducing dose protocol

- carbamazepine also effective in treatment of alcohol withdrawal
- phenytoin is said not to be as effective in the treatment of alcohol withdrawal seizures

Next question

Textbooks

High-yield textbook

Extended textbook

Score: **20.7%**

1	✗
2	✗
3	✗
4	✗
5	✗
6	✗
7	✓
8	✗
9	✗
10	✗
11	✗
12	✗
13	✗
14	✗
15	✗

PassMedicine

Question 59 of 117

Carol is a 57-year-old lady who is under a section 3 at a an inpatient psychiatric hospital. She has stopped eating or drinking as she believes she is dead and does not require food anymore. Which syndrome is characterised by a person believing they are dead or non-existent?

Cotard syndrome	81%
Capgras syndrome	8%
Couvade syndrome	4%
De Clerambault's syndrome	3%
Othello syndrome	4%

Cotard syndrome is characterised by a person believing they are dead or non-existent

Important for me Less important

Cotard syndrome is characterised by a person believing they are dead or non-existent. It tends to be related to depression.

Capgras syndrome is characterised by a person believing their friend or relative had been replaced by an exact double.

Couvade syndrome is also known as 'sympathetic pregnancy'. It affects fathers, particularly during the first and third trimesters of pregnancy, who suffer the somatic features of pregnancy.

De Clerambault's syndrome is characterised by a person believing that another individual (often a celebrity) is deeply in love with them. It typically affects females.

Othello syndrome is when the patient believes their partner is cheating on them. They may be threatening or stalk their partner. This seems to affect males more than females.

Discuss (9) Improve

Next question

Cotard syndrome

Cotard syndrome is a rare mental disorder where the affected patient believes that they (or in some cases just a part of their body) is either dead or non-existent. This delusion is often difficult to treat and can result in significant problems due to patients stopping eating or drinking as they deem it not necessary.

Cotard syndrome is associated with severe depression and psychotic disorders.

Next question

Textbooks

High-yield textbook

Extended textbook

Score: **20.3%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗

PassMedicine

Question 60 of 117

A 74-year-old man is seen with his wife, who states that the patient has not been himself in the last six weeks. He is frequently agitated over minor issues, sleeps a lot throughout the day, and lost interest in his usual hobbies. The patient reports feeling more forgetful recently. Neurological examination is normal. His Montreal Cognitive Assessment (MoCA) score is 24/30. When asked to subtract numbers or describe similarities between objects, he frequently answers, 'I don't know'.

What is the most likely diagnosis?

Alzheimer's disease	13%
Dementia with lewy body	8%
Depressive disorder	76%
Normal pressure hydrocephalus	2%
Parkinson's disease	1%

Elderly patients with depression are less likely to complain of low mood and instead may present with health anxiety, agitation and sleep disturbance

Important for me Less important

Depression presents differently in the elderly. The history of agitation, anhedonia, and sleep disturbance with a relatively high MOCA score points towards a diagnosis of depression rather than dementia. They engage poorly with the test, as compared to patients with Alzheimer's dementia who make an attempt but are not able to answer correctly.

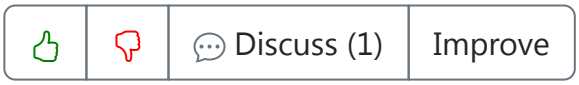
Patients with mild **Alzheimer's dementia** score 16 on average on the MOCA. An objective finding of poor short-term memory is more common in dementia, whereas a subjective complaint of poor memory is more common in depression.

Lewy body dementia more commonly presents with cognitive impairment, gait disorders and visual hallucinations. The normal neurological findings here makes this diagnosis unlikely.

Normal pressure hydrocephalus is characterized by the triad of cognitive impairment, gait disorders and urinary incontinence. Although the patient has been more forgetful, the

neurological examination is normal.

Parkinson's disease presents with rigidity, bradykinesia and tremor, none of which is seen here.



Next question

Depression in older people

Older patients are less likely to complain of depressed mood

Features

- physical complaints (e.g. hypochondriasis)
- agitation
- insomnia

Management

- SSRIs are first line (adverse side-effect profile of TCAs more of an issue in the elderly)

Next question



Textbooks

High-yield textbook

Extended textbook

PassMedicine

Question 61 of 117

A 39-year-old patient is taking phenelzine, a monoamine oxidase inhibitor, for the treatment of depression. Which one of the following foods can the patient safely eat?

Bovril	7%
Cheese	11%
Oxo	8%
Eggs	53%
Broad beans	21%

The correct answer is **Eggs**. Phenelzine is a monoamine oxidase inhibitor (MAOI) used in the treatment of depression. One of the key considerations when prescribing MAOIs is their potential to interact with tyramine, a compound found in certain foods, leading to a hypertensive crisis. Tyramine is usually broken down by monoamine oxidase in the gut; however, this process is inhibited by MAOIs like phenelzine. Foods that are high in tyramine include aged cheeses, fermented or cured meats, and certain vegetables like broad beans. Eggs are considered safe as they have low levels of tyramine.

The first incorrect answer is **Bovril**. Bovril is a meat extract product often used as a flavouring for soups and stews. It contains high levels of tyramine and therefore can cause a hypertensive crisis if consumed by someone taking an MAOI.

Next, **Cheese** is another incorrect option. Cheese, especially aged cheese, has high levels of tyramine. The longer a cheese has been aged, the higher its tyramine content will be.

Oxo, similar to Bovril, is also incorrect because it's another type of meat extract product that can contain high amounts of tyramine.

Finally, **Broad beans** should also be avoided while on phenelzine due to their high tyramine content.

Discuss (7) | Improve

Next question

Monoamine oxidase inhibitors

Overview

- serotonin and noradrenaline are metabolised by monoamine oxidase in the presynaptic cell

Non-selective monoamine oxidase inhibitors

- e.g. tranylcypromine, phenelzine
- used in the treatment of atypical depression (e.g. hyperphagia) and other psychiatric disorder
- not used frequently due to side-effects

Adverse effects of non-selective monoamine oxidase inhibitors

- hypertensive reactions with tyramine containing foods e.g. cheese, pickled herring, Bovril, Oxo, Marmite, broad beans
- anticholinergic effects

Next question

Textbooks

High-yield textbook

Extended textbook

Links

MayoClinic

1 3

Low-tyramine diet

PassMedicine

Question 62 of 117

A 27-year-old woman telephones her GP, asking for advice. She is very keen on stopping all of her medications and wishes to stop them all abruptly. She has a past medical history of asthma, depression and intermittent tennis elbow pain, for which she takes a salbutamol inhaler, citalopram and paracetamol respectively.

Which of the following is most likely to occur with regards to abrupt cessation of her medications?

Blunted affect	26%
Cyanopsia	5%
Diarrhoea	62%
Hypertension	4%
Weight gain	4%

Gastrointestinal side-effects such as diarrhoea are seen in SSRI discontinuation syndrome

Important for me Less important

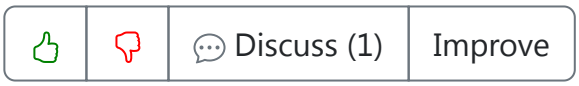
The salient point here is to note the use of citalopram. Stopping a salbutamol inhaler and paracetamol suddenly are not likely to lead to any side effects. Stopping a selective serotonin reuptake inhibitor (SSRI), such as citalopram, abruptly will lead to discontinuation symptoms. From those listed, by far, the most likely is diarrhoea, as gastrointestinal side-effects are generally common with SSRI discontinuation syndrome. To avoid this, SSRIs should gradually be tapered.

A blunted affect is unlikely to occur as a result of sudden discontinuation. This is often a side effect of antidepressants themselves. Discontinuation sometimes leads to the opposite - emotional lability and visible mood swings.

Cyanopsia, or blue-tinted vision, is not known to occur with SSRI discontinuation. It is a recognised side effect of some drugs, including sildenafil.

Hypertension has been reported in a few cases upon discontinuation of SSRIs, but diarrhoea and gastrointestinal symptoms are far more likely. It is more common with sudden discontinuation of beta-blockers.

Weight loss, rather than weight gain, is often reported upon sudden discontinuation of SSRIs.



Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor

- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

Next question

Textbooks

High-yield textbook

Extended textbook

Links

NICE

2022 Depression in adults: treatment and management

2 6

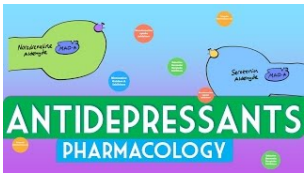
Report broken link

Media



Antidepressants

Speed Pharmacology - YouTube 30 2



Antidepressants Pharmacology

Soton Brain Hub - YouTube 9 3

Report broken media

Score: **21%**

1 ✕
2 ✕
3 ✕
4 ✕

PassMedicine

Question 63 of 117

A 30-year-old man presents to his doctor as he has been feeling generally 'out of sorts' for the past few weeks. He is accompanied by his girlfriend who says he has 'not been himself'. She is worried and feels he may need to see a psychiatrist. There is no history of past mental health problems. Which one of the following symptoms would be most suggestive of depression?

Palpitations	2%
Nausea before certain situations e.g. getting on a bus	2%
Early morning waking	73%
Excessive gambling	7%
Flash-backs to childhood problems	16%

Early morning waking is a classic somatic symptom of depression and often develops earlier than general insomnia.

Palpitations and nausea and more common with anxiety. Excessive gambling may suggest either a simple gambling addiction or be part of a hypomanic/manic disorder.

Flash-backs are common in post-traumatic stress disorder.

Discuss (2) | Improve

Next question

Depression: screening and assessment

Screening

The following two questions can be used to screen for depression

- 'During the last month, have you often been bothered by feeling down, depressed or hopeless?'

- 'During the last month, have you often been bothered by having little interest or pleasure in doing things?'

A 'yes' answer to either of the above should prompt a more in depth assessment.

Assessment

There are many tools to assess the degree of depression including the Hospital Anxiety and Depression (HAD) scale and the Patient Health Questionnaire (PHQ-9).

Hospital Anxiety and Depression (HAD) scale

- consists of 14 questions, 7 for anxiety and 7 for depression
- each item is scored from 0-3
- produces a score out of 21 for both anxiety and depression
- severity: 0-7 normal, 8-10 borderline, 11+ case
- patients should be encouraged to answer the questions quickly

Patient Health Questionnaire (PHQ-9)

- asks patients 'over the last 2 weeks, how often have you been bothered by any of the following problems?'
- 9 items which can then be scored 0-3
- includes items asking about thoughts of self-harm

Traditionally, depression severity has been grouped under 4 categories (subthreshold, mild, moderate and severe). The updated NICE guideline uses a simpler 2 category definition of depression: less severe or more severe depression.

Less severe depression encompasses subthreshold and mild depression, and more severe depression encompasses moderate and severe depression. Thresholds on validated scales were used in this guideline as an indicator of severity

- a score < 16 on the PHQ-9: less severe depression
- a score of ≥ 16 on the PHQ-9: severe depression

The DSM-5 also provides criteria for diagnosing major depressive disorder (MDD), commonly referred to as depression.

Major Depressive Disorder (MDD) DSM-5 Criteria:

Five (or more) of the following symptoms have been present during the same 2-week period and

represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.

- Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad, empty, hopeless) or observation made by others (e.g., appears tearful). (Note: In children and adolescents, can be irritable mood.)
- Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation).
- Significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. (Note: In children, consider failure to make expected weight gain.)
- Insomnia or hypersomnia nearly every day.
- Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down).
- Fatigue or loss of energy nearly every day.
- Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick).
- Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others).
- Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.

Next question

Textbooks

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Links

Patient.info 4 2

PHQ 9 form

PassMedicine

Question 64 of 117

A woman who gave birth 5 days ago presents for review as she is concerned about her mood. She is having difficulty sleeping and feels generally anxious and tearful. Since giving birth she has also found herself snapping at her husband. This is her first pregnancy, she is not breast feeding and there is no history of mental health disorders in the past. What is the most appropriate management?

Explanation and reassurance	72%
Cognitive behavioural therapy	13%
Trial of fluoxetine	3%
Trial of citalopram	2%
Discuss with psychiatric team to consider admission to mother and baby unit	10%

This woman has the baby-blues which is seen in around two-thirds of women. Whilst poor sleeping can be a sign of depression it is to be expected with a new baby!

Discuss (2) | Improve

Next question

Postpartum mental health problems

Postpartum mental health problems range from the 'baby-blues' to puerperal psychosis.

The **Edinburgh Postnatal Depression Scale** may be used to screen for depression:

- 10-item questionnaire, with a maximum score of 30
- indicates how the mother has felt over the previous week
- score > 13 indicates a 'depressive illness of varying severity'
- sensitivity and specificity > 90%
- includes a question about self-harm

'Baby-blues'	Postnatal depression	Puerperal psychosis
Seen in around 60-70% of women Typically seen 3-7 days following birth and is more common in primips Mothers are characteristically anxious, tearful and irritable	Affects around 10% of women Most cases start within a month and typically peaks at 3 months Features are similar to depression seen in other circumstances	Affects approximately 0.2% of women Onset usually within the first 2-3 weeks following birth Features include severe swings in mood (similar to bipolar disorder) and disordered perception (e.g. auditory hallucinations)
Reassurance and support, the health visitor has a key role	As with the baby blues reassurance and support are important NICE CKS state '*Most women with the baby blues will not require specific treatment other than reassurance*' Cognitive behavioural therapy may be beneficial. Certain SSRIs such as sertraline and paroxetine* may be used if symptoms are severe** - whilst they are secreted in breast milk it is not thought to be harmful to the infant	Admission to hospital is usually required, ideally in a Mother & Baby Unit There is around a 25-50% risk of recurrence following future pregnancies

*paroxetine is recommended by SIGN because of the low milk/plasma ratio
**fluoxetine is best avoided due to a long half-life

Next question

Textbooks

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Links

South African Depression and Anxiety Group 1 0

Edinburgh Postnatal Depression Scale

SIGN 3 1

2012 Management of perinatal mood disorders

NICE 1 1

2014 Antenatal and postnatal mental health

Clinical Knowledge Summaries 0 1

Depression - antenatal and postnatal

Report broken link

Score: **21.9%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗

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Question 65 of 117

A 14-year-old boy is brought for review. He is normally fit and well and hasn't seen a doctor for over five years. His mother has been increasingly concerned about his behaviour in the past few weeks. She describes him staying up late at night, talking quickly and being very irritable. Yesterday he told his mother he was planning to 'take-over' the school assembly and give 'constructive criticism' to his teachers in front of the other pupils. He feels many of his teachers are 'underperforming' and need to be 'retaught' their subjects by him. He admits to trying cannabis once around six months ago and has drank alcohol 'a few times' in the past year, the last time being two weeks ago. Prior to his deterioration a few weeks ago his mother describes him as a happy, well-adjusted, sociable young man. Which one of the following is the most likely diagnosis?

Hypomania	20%
Cannabis-induced psychosis	15%
Mania	56%
Alcoholic hallucinosis	3%
Asperger's syndrome	6%

Cannnabis and alcohol related problems are very unlikely given how long ago he used those substances. The delusions of grandeur imply this is mania rather than hypomania.

Discuss (5) | Improve

Next question

Hypomania vs. mania

Mania	Hypomania
• Lasts for at least 7 days - Causes severe functional impairment in social	• A lesser version of mania

Mania	Hypomania
and work setting • May require hospitalization due to risk of harm to self or others • May present with **psychotic symptoms**	• Lasts for < 7 days, typically 3-4 days. Can be high functioning and does not impair functional capacity in social or work setting • Unlikely to require hospitalization • Does not exhibit any psychotic symptoms

Therefore, the length of symptoms, severity and presence of psychotic symptoms (e.g. delusions of grandeur, auditory hallucinations) helps differentiates mania from hypomania.

The following symptoms are common to both hypomania and mania

Mood
- predominately elevated
- irritable

Speech and thought
- pressured
- flight of ideas: characterised by rapid speech with frequent changes in topic based on associations, distractions or word play
- poor attention

Behaviour
- insomnia
- loss of inhibitions: sexual promiscuity, overspending, risk-taking
- increased appetite

Next question

Textbooks

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Question 66 of 117

An 18-year-old girl is brought in by her mother for medical assessment. She has been refusing meals for an extended period and her oral intake has been severely limited. She has no past medical history.

On examination, she is frail and underweight with a body mass index of 14kg/m^2. There is fine white hair on her arms.

Given the likely diagnosis, what is a possible finding?

High follicle-stimulating hormone	9%
High lutenising hormone	11%
Hyperkalaemia	12%
Low cortisol	28%
Parotidomegaly	40%

Anorexia features

- most things low
- **G**'s and **C**'s raised: **g**rowth hormone, **g**lucose, salivary **g**lands, **c**ortisol, **c**holesterol, **c**arotinaemia

Important for me Less important

Parotidomegaly is correct. The patient presents with reduced oral intake and a very low body mass index along with lanugo hair. This suggests anorexia nervosa (AN) as the diagnosis. Parotidomegaly is a recognised feature of this condition.

High follicle-stimulating hormone (FSH) is incorrect. There is hypothalamic dysfunction in AN but this is characterized by hyposecretion of FSH rather than hypersecretion.

High lutenising hormone (LH) is incorrect. Again, analogous to FSH, the LH level is low rather than high in AN.

Hyperkalaemia is incorrect. Most things are 'low' in AN and potassium follows this pattern. Hypokalaemia, rather than hyperkalemia, is a feature of AN.

Low cortisol is incorrect. The cortisol level is high, rather than low, in AN. High cortisol is an adaptive mechanism to maintain euglycaemia in a state of low energy availability.

Discuss (1) Improve

Next question

Anorexia nervosa: features

Anorexia nervosa is associated with a number of characteristic clinical signs and physiological abnormalities which are summarised below

Features

- reduced body mass index
- bradycardia
- hypotension
- enlarged salivary glands

Physiological abnormalities

- hypokalaemia
- low FSH, LH, oestrogens and testosterone
- raised cortisol and growth hormone
- impaired glucose tolerance
- hypercholesterolaemia
- hypercarotinaemia
- low T3

Next question

PassMedicine

Question 67 of 117

Which one of the following side-effects is more common with atypical than conventional anti-psychotics?

Akathisia	5%
Weight gain	72%
Galactorrhoea	10%
Parkinsonism	5%
Tardive dyskinesia	9%

Atypical antipsychotics commonly cause weight gain

Important for me Less important

The correct answer is **Weight gain**. Atypical antipsychotics, also known as second-generation antipsychotics, are more associated with weight gain than conventional or first-generation antipsychotics. This side effect is particularly common with medications such as olanzapine and clozapine. The mechanism of weight gain involves the antagonism of serotonin 5-HT2C and histamine H1 receptors, resulting in increased appetite and reduced satiety.

Akathisia is a condition characterised by motor restlessness and a compulsion to move. It's more commonly associated with the use of first-generation antipsychotics due to their high D2 receptor blockade which can cause extrapyramidal symptoms, including akathisia. While it can occur with atypical antipsychotics, the incidence is lower compared to conventional ones.

Galactorrhoea, or inappropriate lactation, occurs due to elevated prolactin levels. Both atypical and typical antipsychotics can cause hyperprolactinaemia, but this side effect is less common with atypical agents because they have less dopamine D2 receptor blockade in the tuberoinfundibular pathway where prolactin secretion is regulated.

Parkinsonism refers to symptoms that mimic Parkinson's disease such as bradykinesia, rigidity, tremor and postural instability. These symptoms are more likely to be seen with first-generation antipsychotics due to their strong dopamine D2 receptor antagonism which affects the nigrostriatal pathway involved in motor control.

Lastly, **Tardive dyskinesia**, characterised by repetitive involuntary movements especially around the mouth area (e.g., grimacing), is another extrapyramidal symptom that's more frequently observed with conventional rather than atypical antipsychotics. This is because typical agents have a higher affinity for D2 receptors and a longer duration of D2 blockade compared to atypical agents.

Discuss (3) Improve

Next question

Atypical antipsychotics

Atypical antipsychotics should now be used first-line in patients with schizophrenia, according to 2005 NICE guidelines. The main advantage of the atypical agents is a significant reduction in extrapyramidal side-effects.

Adverse effects of atypical antipsychotics

- weight gain
- clozapine is associated with agranulocytosis (see below)
- hyperprolactinaemia

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Examples of atypical antipsychotics

- clozapine
- olanzapine: higher risk of dyslipidemia and obesity
- risperidone
- quetiapine
- amisulpride
- aripiprazole: generally good side-effect profile, particularly for prolactin elevation

Next question

Textbooks

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Extended textbook

Links

NICE

2014 Schizophrenia guidelines

3 0

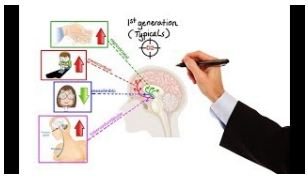
BNF

Clozapine

1 1

Report broken link

Media



Antipsychotics

Speed Pharmacology - YouTube 31 1

Report broken media

Score: **23.9%**

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Question 68 of 117

A 26-year-old female presents to the Emergency Department feeling suicidal after the breakdown of her relationship two weeks ago. She reports being fearful of being on her own as he had made all major decisions in their relationship as she is not capable of making correct choices. She has tried online dating since her relationship broke down but despite multiple dates has not yet found a new partner.

She advises you she was previously diagnosed with a personality disorder. What is the most likely diagnosis?

Borderline personality disorder	22%
Paranoid personality disorder	2%
Narcissistic personality disorder	2%
Dependent personality disorder	71%
Avoidant personality disorder	3%

Patients with dependant personality disorder require excessive reassurance from others, seek out relationships and require others to take responsibility for major life decisions

Important for me Less important

The correct answer is dependent personality disorder. The patient in the question is struggling to cope after the breakdown of a relationship. Patients with this personality disorder struggle to make everyday life decisions and require reassurance and support from others. They feel they are unable to look after themselves and become fearful when left to do so. As in this patient whose relationship only broke down 2 weeks ago but has already been on multiple dates, they cope best when in a relationship and urgently seek out new relationships if one fails. They will often passively comply with the wishes of others.

Borderline personality disorder is characterised by emotional instability, impulsive behaviour and intense but unstable relationships with others. Patients often fear abandonment but do not seek out excessive reassurance and are able to make life decisions making this the incorrect answer.

In contrast to dependent personality disorder, paranoid personality disorder presents in patients

who are reluctant to confide in others, question the loyalty of friends and family and can be unforgiving.

Narcissistic personality disorder is incorrect. These patients have an over-exaggerated sense of self-importance, lack empathy and tend to have a sense of entitlement.

Avoidant personality disorder is different from dependent personality disorder in that patients avoid social contact/relationships due to fear of being criticised, rejected or embarrassed. Patients view themselves as inferior to others and so are not keen to be involved unless they are certain of being liked.

Further information on personality disorder can be found in the ICD 10 guide - http://apps.who.int/classifications/icd10/browse/2016/en#/F66

Discuss (2) Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	**Cluster B: 'Dramatic, Emotional, or Erratic'**	**Cluster C: 'Anxious and Fearful'**
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others

- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values
- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning

- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

Textbooks

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Media



Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



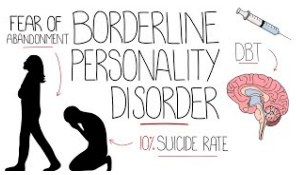
Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2

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Question 69 of 117

A 23-year-old man presents as he is concerned about a number of recent episodes related to sleep. He finds when he wakes up and less often when he is falling asleep he is 'paralysed' and unable to move. This sometimes associated with what the patient describes as 'hallucinations' such as seeing another person in the room. He is becoming increasingly anxious about these recent episodes. What is the most likely diagnosis?

Frontal lobe epilepsy	3%
Generalised anxiety disorder	3%
Sleep paralysis	80%
Night terrors	8%
Acute schizophrenia	6%

The correct answer is **sleep paralysis**. Sleep paralysis is a condition characterized by the inability to move or speak when transitioning between sleep and wakefulness, either when falling asleep or upon awakening. It can be accompanied by vivid hallucinations, which may explain the patient's description of seeing another person in the room. Sleep paralysis is generally harmless but can cause significant anxiety for those who experience it.

The first incorrect option, **frontal lobe epilepsy**, is a type of focal epilepsy that originates in the frontal lobes of the brain. While seizures in frontal lobe epilepsy can occur during sleep and present with unusual behaviours or movements, they would not typically cause the sensation of paralysis described by the patient.

Generalised anxiety disorder (GAD) is another incorrect option. GAD is characterized by excessive and persistent worry about various aspects of life, which might include concerns about one's health. However, GAD does not directly cause episodes of sleep-related paralysis or hallucinations.

The fourth option, **night terrors**, are episodes of intense fear and agitation that occur during deep non-REM sleep. They are more common in children but can also affect adults. During a night terror episode, an individual may scream, thrash around, or exhibit other signs of distress; however, they do not experience paralysis as described by the patient.

Finally, **acute schizophrenia** is an incorrect answer choice. Schizophrenia is a chronic mental health disorder characterized by symptoms such as hallucinations, delusions, disorganized speech and behaviour, and negative symptoms like diminished emotional expression. While hallucinations may be present in schizophrenia patients, the specific pattern of sleep-related paralysis described by this patient does not align with typical manifestations of acute schizophrenia.

In conclusion, based on this 23-year-old man's presentation of transient paralysis upon waking up or falling asleep, accompanied by hallucinations and increasing anxiety, the most likely diagnosis is sleep paralysis.

Discuss (6) Improve

Next question

Sleep paralysis

Sleep paralysis is a common condition characterized by transient paralysis of skeletal muscles which occurs when awakening from sleep or less often while falling asleep. It is thought to be related to the paralysis that occurs as a natural part of REM (rapid eye movement) sleep. Sleep paralysis is recognised in a wide variety of cultures

Features

- paralysis - this occurs after waking up or shortly before falling asleep
- hallucinations - images or speaking that appear during the paralysis

Management

- if troublesome clonazepam may be used

Next question

Textbooks

PassMedicine

Question 70 of 117

A 40-year-old with an established diagnosis of depression and anxiety disorder is seen in the clinic for a review of his condition. The patient had been prescribed amitriptyline previously offering varying levels of improvement. However, he discontinued this recently due to the side effects he encountered.

As such a proposed a trial of duloxetine is suggested. Before proceeding, a thorough review of his current medication is conducted to ensure no potential interactions and the side effect profile of the drug is provided.

What is this new drug's mechanism of action?

Dopamine agonists	2%
Noradrenergic and specific serotonergic antidepressant	11%
Norepinephrine-dopamine reuptake inhibitor	6%
Selective serotonin reuptake inhibitors	15%
Serotonin-noradrenaline reuptake inhibitor	66%

Duloxetine mechanism of action = serotonin and noradrenaline reuptake inhibitor

Important for me Less important

Duloxetine is a recently developed medication utilized to treat major depressive and generalized anxiety disorders, along with specific pain conditions like fibromyalgia and neuropathic pain. It functions as a **serotonin-noradrenaline reuptake inhibitor**, increasing the levels of both serotonin and noradrenaline in the synaptic clefts. Although the exact mechanism for its antidepressant and anxiolytic effects remains uncertain, this increase in neurotransmitter concentration is believed to play a crucial role. Whether medications that boost both neurotransmitters are more effective than those targeting only one is still a topic requiring further investigation.

Dopamine agonists are commonly used as adjuncts in the management of Parkinson's disease for patients experiencing depressive symptoms. They are rarely used in the management of depression and anxiety alone. Common examples include bromocriptine, ropinirole and

cabergoline.

Noradrenergic and specific serotonergic antidepressants (NaSSAs) represent a category of psychiatric medications primarily employed as antidepressants. Their mechanism involves the antagonism of the Î±2-adrenergic receptor and specific serotonin receptors. Through the inhibition of Î±2-adrenergic autoreceptors and heteroreceptors, NaSSAs effectively amplify the transmission of adrenergic and serotonergic neurotransmitters within the brain, particularly the mood-regulating 5-HT1A-mediated transmission. Mirtazapine is an example of this antidepressant class.

Norepinephrine-dopamine reuptake inhibitors function by blocking the reuptake of norepinephrine and dopamine neurotransmitters. They achieve this by inhibiting the norepinephrine transporter (NET) and the dopamine transporter (DAT), respectively resulting in an increase in extracellular concentrations of both neurotransmitters, leading to enhanced adrenergic and dopaminergic neurotransmission. These inhibitors are commonly employed in the treatment of clinical depression, attention deficit hyperactivity disorder (ADHD) and narcolepsy.

Selective serotonin reuptake inhibitors (SSRI) raise the extracellular levels of the neurotransmitter serotonin by impeding its reabsorption into the presynaptic cell. They exhibit different levels of selectivity for other monoamine transporters, with pure SSRIs having a strong affinity for the serotonin transporter and only a weak affinity for the norepinephrine and dopamine transporters. Some common examples of SSRIs include citalopram, sertraline, and fluoxetine.

Discuss Improve

Next question

Serotonin and noradrenaline reuptake inhibitors

Serotonin and noradrenaline reuptake inhibitor (SNRI's) are a class of relatively new antidepressants. Inhibiting the reuptake increases the concentrations of serotonin and noradrenaline in the synaptic cleft leading to the effects. Examples include venlafaxine and duloxetine. They are used to treat major depressive disorders, generalised anxiety disorder, social anxiety disorder and panic disorder and menopausal symptoms.

Next question

PassMedicine

Question 71 of 117

A 40-year-old with known rheumatoid arthritis, established on sulfasalazine and regular paracetamol and ibuprofen, is seen by her GP with ongoing low mood. Non-pharmaceutical interventions have been trialled with limited improvement and now the patient reports they feel their depressive symptoms are worsening.

As such the GP decided to commence the patient on an antidepressant.

What agent would increase this patient's risk of a GI bleed the most, therefore, warranting a protein pump inhibitor as cover?

Amitriptyline	13%
Citalopram	68%
Haloperidol	4%
Selegiline	7%
St John's Wort	8%

SSRI + NSAID = GI bleeding risk - give a PPI

Important for me Less important

Citalopram is a common selective serotonin reuptake inhibitor (SSRIs), which are now considered the first-line treatment for most patients with depression. As the name suggests SSRIs increase the extracellular level of serotonin by limiting its reabsorption at the pre-synapses. Gastrointestinal (GI) disruption is common with SSRI use, and they are associated with a significant risk of GI bleeding. It is thought SSRI potential deplete platelet serotonin, resulting in a reduction in clot formation, therefore, increasing the risk of bleeding. As this patient is already established on an NSAID the addition of an SSRI will increase her risk of GI bleeding further and therefore a protein pump inhibitor (PPI) should also be prescribed.

Amitriptyline is a tricyclic antidepressant (TCA) that can be used in the management of major depressive disorders as well as several different pain syndromes. Amitriptyline inhibits serotonin transporter (SERT) and norepinephrine transporter (NET) both increasing neurotransmitter availability. The main adverse effects of TCAs are related to their anticholinergic effects resulting in

symptoms such as blurred vision, dry mouth, and constipation etc. GI bleeds are not commonly associated with TCAs.

Haloperidol is a typical antipsychotic, rarely used for patients with severe depression and psychotic symptoms. It blocks receptors in the brain's dopamine pathways and therefore the main adverse effects include, extrapyramidal side effects (akathisia, dystonia etc), hypotension and anticholinergic effects. Again GI bleeds are rare.

Selegiline is a selective and irreversible inhibitor of monoamine oxidase B (MAO-B), and therefore in the class of monoamine oxidase inhibitors (MAOIs). MAOIs are used as antidepressants and work by preventing the breakdown of monoamine neurotransmitters, increasing their availability. MAOIs have been associated with an increased risk of serotonin syndrome and hypertensive crises but GI bleeds are rare.

Hypericum perforatum, commonly known as **St John's Wort** is a plant frequently used in alternative medicine, particularly for the management of depression. Although its use remains controversial multiple studies have indicated it may have superiority over placebo on treating mild to moderate depression, with the active ingredients thought to be hypericin and hyperforin. St John's wort can interfere with other medications, and its use with other antidepressants is associated with an increased risk of serotonin syndrome, however, it has not been associated with an increased risk of GI bleeding.

Discuss (1) Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect

- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

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Antidepressants

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Question 72 of 117

A 25-year-old woman presents with an inability to use her right arm, for 3 days. The patient has been living with her mother for the past 5 days after being a victim of domestic abuse from her husband. She is unable to move her right arm from her shoulder to her fingers. She denies any trauma. The patient admits to feeling very stressed currently.

Examination shows normal tone and reflexes but 0/5 power in all muscle groups of the right upper limb. When the affected arm is held above the patient's face and released, the arm misses the face and falls at the patient's side.

What is the likely diagnosis?

Acute stress disorder	9%
Conversion disorder	66%
Post traumatic stress disorder (PTSD)	6%
Somatisation disorder	17%
Spinal cord lesion	1%

Functional neurological disorder (conversion disorder) - typically involves loss of motor or sensory function

Important for me Less important

This patient has no historical or clinical findings of neurological disease. The likely diagnosis here is **conversion disorder** - a psychiatric condition where psychological stress is unconsciously manifested as physical, neurological symptoms. This was most likely triggered by recent domestic abuse and stress. This patient also has a positive drop-arm test in which the patient unconsciously exhibits a controlled drop to prevent the arm from hitting their face.

Acute stress disorder occurs following life-threatening experiences such as abuse; however, it is characterised by symptoms of hyperarousal, re-experiencing of the traumatic event, avoidance of stimuli and distress - not physical weakness. As opposed to post-traumatic stress disorder, it lasts between 3 days and 1 month.

Post-traumatic stress disorder occurs following life-threatening experiences such as abuse; it fits the same definition as acute stress disorder, but symptoms lasting longer than 1 month.

Patients with **somatisation disorder** have multiple bodily complaints lasting months to years and persistent anxiety about their symptoms. Considering this patient's history and physical findings she likely has conversion disorder.

Considering this patient's normal tone and reflexes and lack of trauma to the neck or spine, a **spinal cord lesion** causing total arm paralysis is very unlikely.

Discuss (3) Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder

- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Functional neurological disorder (conversion disorder)

- typically involves loss of motor or sensory function
- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)
- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Dissociative disorder

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor
- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

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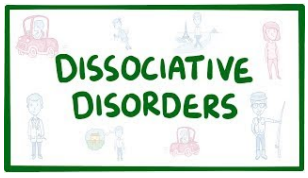
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2013 Functional neurological symptoms

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Dissociative disorders

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Question 73 of 117

Which one of the following is associated with a good prognosis in schizophrenia?

Acute onset	71%
Strong family history	4%
Low IQ	3%
Premorbid history of social withdrawal	4%
Lack of obvious precipitant	18%

The correct answer is **Acute onset**. Acute onset of schizophrenia is associated with a better prognosis compared to insidious or gradual onset. This is because acute onset often follows a stressful event and patients usually have a good premorbid personality and functioning. They are also more likely to respond well to treatment, which improves the overall prognosis.

Now let's discuss why the other options are incorrect.

Strong family history: While having a strong family history of schizophrenia does increase an individual's risk for developing the disease, it does not correlate with a better prognosis. In fact, some studies suggest that individuals with a strong family history may have more severe symptoms and poorer response to treatment.

Low IQ: Low IQ is generally associated with poorer outcomes in schizophrenia. Individuals with lower cognitive abilities may struggle more with managing their symptoms and adhering to treatment plans, leading to worse outcomes over time.

Premorbid history of social withdrawal: A premorbid history of social withdrawal is generally associated with worse outcomes in schizophrenia. These individuals often have poorer social skills and fewer support systems in place, which can complicate treatment and recovery efforts.

Lack of obvious precipitant: The presence or absence of an obvious precipitant does not significantly impact the prognosis of schizophrenia. However, as mentioned earlier, those who experience acute onset following a stressful event (which could be considered an 'obvious precipitant') tend to have better outcomes.

Discuss (1) | Improve

Next question

Schizophrenia: prognostic indicators

Factors associated with poor prognosis

- strong family history
- gradual onset
- low IQ
- prodromal phase of social withdrawal
- lack of obvious precipitant

Next question

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2014 Schizophrenia guidelines

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Question 74 of 117

You review a patient who has been taking citalopram for the past two years to treat depression. He has felt well now for the past year and you agree a plan to stop the antidepressant. How should the citalopram be stopped?

Can be stopped immediately	3%
Withdraw gradually over the next 3 days	1%
Withdraw gradually over the next week	2%
Withdraw gradually over the next 2 weeks	15%
Withdraw gradually over the next 4 weeks	80%

When stopping a SSRI the dose should be gradually reduced over a 4 week period

Important for me Less important

The correct answer is **Withdraw gradually over the next 4 weeks**. This is because citalopram, like other selective serotonin reuptake inhibitors (SSRIs), can cause withdrawal symptoms if stopped abruptly. These symptoms include dizziness, sleep disturbances, anxiety and mood changes. The UK National Institute for Health and Care Excellence (NICE) guidelines recommend that antidepressants should be withdrawn over a period of at least four weeks to minimise the risk of withdrawal symptoms.

Can be stopped immediately is not recommended as it increases the risk of withdrawal symptoms. This applies to most SSRIs including citalopram.

Withdraw gradually over the next 3 days and **withdraw gradually over the next week** are both too short periods for safe discontinuation. They would likely result in similar problems as immediate cessation due to inadequate time for physiological adjustment.

Withdraw gradually over the next 2 weeks, although better than the previous options, is still less than the recommended minimum duration by NICE guidelines which suggests a gradual reduction over at least four weeks. Therefore, it may still lead to significant withdrawal symptoms in some patients.

Discuss (6) Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

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- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
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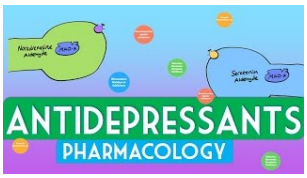
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Score: **21.6%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓

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Question 75 of 117

An 18-year-old woman attends the emergency department with drowsiness. She was found lying in the street. Shortly after admission, she has a tonic clinic seizure which is terminated with lorazepam. On examination, you note mydriasis and urinary retention. Her Glasgow Coma Score (GCS) is currently 11 (M5, V3, E3).

An ECG performed in the department is as follows:

ECG	Sinus tachycardia (120 beats per minute); QRS duration 140ms; Dominant terminal R wave in aVR; First-degree AV block

What is the most likely cause?

Digoxin	5%
Dosulepin	47%
Ivabradine	3%
Quinine	9%
Sertraline	36%

Dosulepin - avoid as dangerous in overdose

Important for me Less important

Dosulepin is correct, The clinical (e.g. seizures, mydriasis, urinary retention) and electrocardiographic features are most in keeping with tricyclic overdose. These agents block sodium channels resulting in CNS and cardiovascular toxicity in overdose in the form of seizures and ventricular dysrhythmias. Tricyclics mediate their cardiotoxic effects via blockade of myocardial fast sodium channels (e.g. QRS prolongation, tall R wave in aVR), inhibition of potassium channels (e.g. QTc prolongation), and direct myocardial depression.

Digoxin is incorrect, The classical digoxin toxic dysrhythmia combines:

- Supraventricular tachycardia (due to increased automaticity)
- Slow ventricular response (due to decreased AV conduction)

The broad complex tachycardia in this case makes digoxin toxicity less likely. However rarely this can occur in digoxin toxicity due to a bidirectional ventricular tachycardia (VT) with a frontal-plane axis that alternates by 180 degrees with each successive beat.

Ivabradine is incorrect. Ivabradine toxicity can cause bradycardia, sinus arrest, and heart block.

Quinine is incorrect. Although quinine is also a sodium channel-blocking agent and can cause a wide complex tachyarrhythmia, the presence of mydriasis and urinary retention favours a diagnosis of amitriptyline toxicity.

Sertraline is incorrect. SSRI overdose can predispose to prolonged QTc and Torsades de pointes. Although seizures and mydriasis (e.g. serotonin syndrome) can occur with SSRI toxicity, the electrocardiographic features of a broad complex tachycardia and a dominant terminal R wave in aVR are more consistent with tricyclic toxicity.

Discuss (2) Improve

Next question

Tricyclic antidepressants

Tricyclic antidepressants (TCAs) are used less commonly now for depression due to their side-effects and toxicity in overdose. They are however used widely in the treatment of neuropathic pain, where smaller doses are typically required.

The primary mechanism by which TCAs exert their antidepressant effects is through the inhibition of the reuptake of neurotransmitters

- Serotonin (5-HT): This neurotransmitter has a pivotal role in mood regulation. Inhibition of its reuptake leads to increased concentrations in the synaptic cleft, enhancing serotonergic neurotransmission.
- Noradrenaline (NA): Similar to 5-HT, blocking the reuptake of NA increases its synaptic cleft concentration, intensifying noradrenergic neurotransmission.

As well as 5-HT and NA, tricyclics interact with number of other receptors that contribute to their side-effect profile:

- antagonism of histamine receptors
  - drowsiness
- antagonism of muscarinic receptors
  - dry mouth
  - blurred vision

    - constipation
    - urinary retention
- antagonism of adrenergic receptors
    - postural hypotension
- lengthening of QT interval

Choice of tricyclic

- low-dose amitriptyline is commonly used in the management of neuropathic pain and the prophylaxis of headache (both tension and migraine)
- lofepramine has a lower incidence of toxicity in overdose
- amitriptyline and dosulepin (dothiepin) are considered the most dangerous in overdose

More sedative	Less sedative
Amitriptyline Clomipramine Dosulepin Trazodone*	Imipramine Lofepramine Nortriptyline

*trazodone is technically a 'tricyclic-related antidepressant'

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Question 76 of 117

The mother of a 28-year-old male who has been diagnosed with a personality disorder comes to see you. She reports that her son has been arrested multiple times and can often be aggressive getting into fights. As a teenager, he would lie to obtain money, played truant and would say unpleasant hurtful things to her without apology or apparent regret. He has never held down a job and relies on his parents for financial support.

His mother has the name of the condition he has been diagnosed with and knows you are not able to discuss the individual case. She asks if you can provide generic information on his condition to aid her understanding as she has always blamed herself for his behaviour.

What is the most likely condition her son has been diagnosed with?

Avoidant personality disorder	2%
Antisocial personality disorder	77%
Borderline personality disorder	8%
Narcissistic personality disorder	9%
Histrionic personality disorder	4%

Patients with antisocial personality disorder often fail to conform to social norms, and show lack of remorse, deception and irresponsibility

Important for me Less important

The correct answer here is 2 - antisocial personality disorder. Patients with this condition often fail to comply with social norms in terms of lawful behaviour resulting in multiple arrests. They are prone to getting into fights due to aggressiveness and can be deceitful particularly when seeking material gain. They can have a disregard for the safety of themselves and others and are irresponsible, failing to support themselves financially. When they do act inappropriately or in a hurtful way to others, they are unable to show remorse for their actions. There is often a history of problems such as truancy in childhood. Their behaviour can have a significant impact on family life and so it is understandable that his mother may have blamed herself in the past and want more information. It is important to ensure that during this consultation confidentiality is not breached.

Patients with avoidant personality disorder tend to avoid social contact/relationships due to fear of being criticised, rejected or embarrassed. They view themselves as inferior to others and so are not keen to be involved unless they are certain of being liked. Hence this is not the correct answer.

Borderline personality disorder is characterised by emotional instability, impulsive behaviour and intense but unstable relationships with others. Patients often have feelings of emptiness, poor self-image and recurrent attempts at self-harm. Again making this an incorrect answer.

Narcissistic personality disorder is also incorrect. These patients have an over exaggerated perception of self-importance, lack empathy and tend to have a sense of entitlement.

Histrionic personality disorder is seen in patients who crave to be the centre of attention. They can also be sexually inappropriate and suggestible and as such, this is not the correct answer.

Discuss | Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	Cluster B: 'Dramatic, Emotional, or Erratic'	Cluster C: 'Anxious and Fearful'
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others

- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values
- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning

- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

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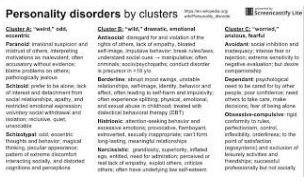
Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



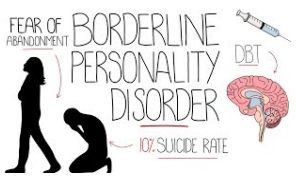
Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2

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Question 77 of 117

A 42-year-old woman presents to the Emergency Department complaining of abdominal pain. She describes generalised abdominal discomfort that has been present constantly for the last four days. She has not experienced any changes to her bowel habit, and has no urinary symptoms. Her weight is stable. She is very concerned that these symptoms are due to an underlying ovarian cancer.

She has presented to both primary and secondary care multiple times this year with similar symptoms. Each time, she has been convinced that she has ovarian cancer, and has not been reassured by a series of negative investigations, including blood tests and pelvic ultrasound scans. Her mother died of ovarian cancer in her sixties.

Her blood test results are as follows:

Hb	118 g/L	Male: (135-180) Female: (115 - 160)
Platelets	195 * 10^9/L	(150 - 400)
WBC	5.8 * 10^9/L	(4.0 - 11.0)
Na^+	135 mmol/L	(135 - 145)
K^+	3.7 mmol/L	(3.5 - 5.0)
Urea	3.5 mmol/L	(2.0 - 7.0)
Creatinine	59 µmol/L	(55 - 120)
CA-125	31 U/mL	(<46)

What is the most likely explanation for her presentation?

Ovarian cancer	1%
Illness anxiety disorder	72%
Somatisation disorder	18%
Conversion disorder	8%
Malingering	2%

Illness anxiety disorder (hypochondriasis) is the persistent belief in the presence of an underlying serious disease, e.g. cancer

Important for me Less important

This patient has presented with an unshakeable conviction that she has a specific serious disease, i.e. ovarian cancer. Her conviction has not become any less strong in the face of negative investigations for the disease in question. This is characteristic of illness anxiety disorder (hypochondriasis), and has likely been contributed to by her mother dying of ovarian cancer.

Ovarian cancer can present insidiously, with vague symptoms such as abdominal pain. However, the diagnosis of ovarian cancer in this patient is made much less likely by a normal CA-125 level, and recent normal pelvic ultrasonography.

Somatisation disorder is also characterised by unexplained symptoms, with patients refusing to accept normal investigation findings as reassurance. However, in somatisation disorder, the symptoms are often more varied, and tend to be present for a longer period of time. The fixation on a specific diagnosis, rather than the symptoms per se, is more in keeping with hypochondriasis.

Conversion disorder is most typically associated with an unexplained loss of sensory or motor function.

Malingering describes the fraudulent fabrication of symptoms with a calculated motive, such as financial gain or exemption from work duties. There is no suggestion that this patient has such a motive for seeking medical attention.

Discuss (2) Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder

- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

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- the intentional production of physical or psychological symptoms

Malingering

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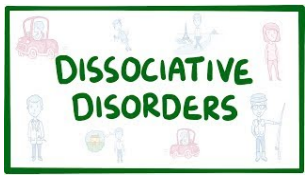
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2013 Functional neurological symptoms

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Media



Dissociative disorders

Osmosis - YouTube 19 1

Factitious disorder

Osmosis - YouTube 9 1



Somatic symptom disorder

Osmosis - YouTube 8 1

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Score: **22.1%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗

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Question 78 of 117

A 47-year-old female with poorly controlled type 1 diabetes attends clinic today with pain in both her legs that have been progressing over the last few months. You suspect diabetic neuropathy.

What medication can be used first-line to treat this?

Capsaicin cream	4%
Duloxetine	49%
Pregabalin	26%
Gabapentin	18%
Clomipramine	3%

Duloxetine mechanism of action = serotonin and noradrenaline reuptake inhibitor

Important for me Less important

In diabetic neuropathy, the first-line treatment is duloxetine, a serotonin and noradrenaline reuptake inhibitor. An alternative is a venlafaxine, another SNRI which does not have quite as much available data for its use.

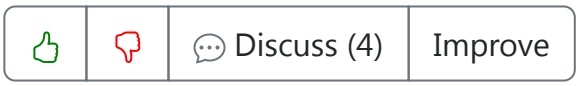
Looking at the others:

Capsaicin cream can be used for neuropathic pain and diabetic neuropathy, but it is not the first line. It works by 'defunctionalising' the nerves through binding to cutaneous nociceptors to modulate the pain sensation.

Pregabalin is an alpha-2-delta ligand antiepileptic drug. Its effects on pain are thought to be related to presynaptic inhibition of the release of excitatory neurotransmitters e.g. glutamate. It is a second-line drug for neuropathic pain from diabetes.

Gabapentin has a similar mechanism of action to pregabalin and works on pain in a similar way. It too is a second-line medication for neuropathic pain in diabetes.

Clomipramine is a tricyclic antidepressant that is used for depressive illness, phobic states and cataplexy. It is not used for neuropathic pain.



Next question

Serotonin and noradrenaline reuptake inhibitors

Serotonin and noradrenaline reuptake inhibitor (SNRI's) are a class of relatively new antidepressants. Inhibiting the reuptake increases the concentrations of serotonin and noradrenaline in the synaptic cleft leading to the effects. Examples include venlafaxine and duloxetine. They are used to treat major depressive disorders, generalised anxiety disorder, social anxiety disorder and panic disorder and menopausal symptoms.

Next question



Textbooks

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Antidepressants

PassMedicine

Question 79 of 117

A 44-year-old woman attends the clinic for review. She was started on sertraline 12 months ago for severe depression. She informs you that the symptoms of depression have now resolved.

For how long should she continue with treatment?

1 month	8%
12 months	5%
3 months	9%
6 months	71%
Indefinitely	6%

Antidepressants should be continued for at least 6 months after remission of symptoms to decrease risk of relapse

Important for me Less important

6 months is correct. Antidepressants should be continued for at least 6 months after remission of symptoms to decrease the risk of relapse.

Discuss Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants

- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change

- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

Next question

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NICE

2 6

2022 Depression in adults: treatment and management

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Question 80 of 117

A 41-year-old man presents to the Emergency Department insisting that he is infested with fleas. He describes that he feels unbearably itchy, and is demanding treatment. This is his third attendance within the last year with this problem. The patient has no significant past medical history and denies taking any recreational drugs. His alcohol intake is reported as 14 units of alcohol per week. He is currently working full-time as a librarian.

What is the most likely diagnosis?

Capgras syndrome	4%
Delirium tremens	5%
Delusional parasitosis	86%
Fregoli syndrome	4%
Schizophrenia	1%

Patient with a fixed, false belief (delusion) that they are infested by 'bugs' → delusional parasitosis

Important for me Less important

The correct answer is **delusional parasitosis**. Delusional parasitosis is a rare condition in which patients present with a fixed, false belief that they are infected by bugs. Although it may present in conjunction with other psychiatric disorders, it may present in isolation, and leave patients relatively functionally unimpaired, as in this case.

Capgras syndrome is incorrect. This is a delusional misidentification syndrome whereby the patient believes that someone significant in their life, such as a spouse or a friend, has been replaced by an identical imposter.

Delirium tremens is incorrect. Although delirium tremens may involve visual hallucinations of insects, or tactile hallucinations similar to this patient's symptoms, this patient is not exhibiting other physical symptoms of delirium tremens (tremor, sweating, disorientation), and the alcohol history provided is not suggestive of excessive consumption followed by abrupt withdrawal.

Fregoli syndrome is incorrect. This is another delusional misidentification syndrome where the patient believes that multiple people are in fact all the same person, who is constantly changing their appearance.

Schizophrenia is incorrect. Schizophrenia most commonly involves auditory hallucinations rather than tactile hallucinations. In addition, the diagnosis of schizophrenia requires other symptoms to be present in addition to hallucinations, such as formal thought disorder or diminished emotional expression.

Discuss (1) Improve

Next question

Delusional parasitosis

Delusional parasitosis is a relatively rare condition where a patient has a fixed, false belief (delusion) that they are infested by 'bugs' e.g. worms, parasites, mites, bacteria, fungus. This may occur in conjunction with other psychiatric conditions or may present by itself, with patients often otherwise quite functional despite the delusion.

Next question

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Question 81 of 117

A 45-year-old man who takes chlorpromazine for schizophrenia presents with severe restlessness. What side-effect of antipsychotic medication is this an example of?

Akathisia	66%
Neuroleptic malignant syndrome	7%
Acute dystonia	7%
Tardive dyskinesia	18%
Parkinsonism	2%

Antipsychotics may cause akathisia (severe restlessness)

Important for me Less important

The correct answer is **Akathisia**. Akathisia is a common side effect of antipsychotic medications, particularly those of the first generation like chlorpromazine. It is characterised by a subjective feeling of restlessness, often with an inability to sit still. The patient may pace around or constantly fidget. This condition typically occurs within the first few weeks of treatment.

Neuroleptic malignant syndrome (NMS) is incorrect as this severe reaction to antipsychotics usually presents with hyperthermia, altered mental status, autonomic dysfunction and generalised muscle rigidity (often described as 'lead pipe' rigidity). Although agitation can be a feature of NMS due to the altered mental status, it would not be the sole presenting symptom.

Acute dystonia is also incorrect because it refers to sudden onset involuntary muscle contractions that cause abnormal movements and postures. These can include oculogyric crisis (involuntary upward eye movement), torticollis (twisting of the neck muscles) and trismus (lockjaw). Restlessness is not characteristic.

Similarly, **Tardive dyskinesia** doesn't fit this presentation either. This side effect generally occurs after long-term use of antipsychotic medication, typically more than 3 months. It manifests as repetitive, involuntary movements such as lip smacking or puckering, grimacing, tongue protrusion and rapid blinking.

Lastly, **Parkinsonism** resulting from antipsychotic use would present with bradykinesia (slowness of movement), resting tremor and rigidity rather than restlessness. It's important to remember that Parkinsonism refers to conditions that exhibit symptoms similar to Parkinson's disease but are caused by other factors such as medication use or different neurological disorders.

Discuss (2) Improve

Next question

Antipsychotics

Antipsychotics are a group of drugs used in the management of schizophrenia and other forms of psychosis, mania and agitation. They are usually divided into typical and atypical antipsychotics. The atypical antipsychotics were developed due to the problematic extrapyramidal side-effects which are associated with the first generation of typical antipsychotics.

	Typical antipsychotics	**Atypical antipsychotics**
Mechanism of action	Dopamine D2 receptor antagonists, blocking dopaminergic transmission in the mesolimbic pathways	Act on a variety of receptors (D2, D3, D4, 5-HT)
Adverse effects	Extrapyramidal side-effects and hyperprolactinaemia common	Extrapyramidal side-effects and hyperprolactinaemia less common Metabolic effects
Examples	Haloperidol Chlorpromazine	Clozapine Risperidone Olanzapine

The rest of this section will focus on typical antipsychotics, with atypical antipsychotics covered elsewhere.

Extrapyramidal side-effects (EPSEs)

- Parkinsonism
- acute dystonia
  - sustained muscle contraction (e.g. torticollis, oculogyric crisis)
  - may be managed with procyclidine

- akathisia (severe restlessness)
- tardive dyskinesia (late onset of choreoathetoid movements, abnormal, involuntary, may occur in 40% of patients, may be irreversible, most common is chewing and pouting of jaw)

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Other side-effects

- antimuscarinic: dry mouth, blurred vision, urinary retention, constipation
- sedation, weight gain
- raised prolactin
  - may result in galactorrhoea
  - due to inhibition of the dopaminergic tuberoinfundibular pathway
- impaired glucose tolerance
- neuroleptic malignant syndrome: pyrexia, muscle stiffness
- reduced seizure threshold (greater with atypicals)
- prolonged QT interval (particularly haloperidol)

Next question

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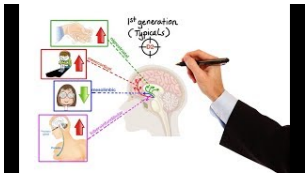
Psychoses and related disorders

Clinical Knowledge Summaries 2 1

Schizophrenia > Prescribing Information > Adverse effects

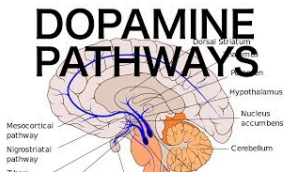
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Media



Antipsychotics

Speed Pharmacology - YouTube 38 0



Antipsychotics, Dopamine, and EPS

Dirty USMLE - YouTube 24 0



Video of patients with tardive dyskinesia

Abnormal Involuntary Movement Scale training video - YouTube 17 3

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Score: **23.5%**

1 ✕

2 ✕

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Question 82 of 117

A 45-year-old man is admitted due to haematemesis. He reports drinking 120 units of alcohol a week. When is the peak incidence of seizures following alcohol withdrawal?

2 hours	1%
6 hours	5%
12 hours	14%
24 hours	16%
36 hours	64%

Alcohol withdrawal
- symptoms: 6-12 hours
- seizures: 36 hours
- delirium tremens: 72 hours

Important for me Less important

Discuss (2) Improve

Next question

Alcohol withdrawal

Mechanism
- chronic alcohol consumption enhances GABA mediated inhibition in the CNS (similar to benzodiazepines) and inhibits NMDA-type glutamate receptors
- alcohol withdrawal is thought to be lead to the opposite (decreased inhibitory GABA and increased NMDA glutamate transmission)

Features

- symptoms start at 6-12 hours: tremor, sweating, tachycardia, anxiety
- peak incidence of seizures at 36 hours
- peak incidence of delirium tremens is at 48-72 hours: coarse tremor, confusion, delusions, auditory and visual hallucinations, fever, tachycardia

Management

- patients with a history of complex withdrawals from alcohol (i.e. delirium tremens, seizures, blackouts) should be admitted to hospital for monitoring until withdrawals stabilised
- first-line: long-acting benzodiazepines e.g. chlordiazepoxide or diazepam. Lorazepam may be preferable in patients with hepatic failure. Typically given as part of a reducing dose protocol
- carbamazepine also effective in treatment of alcohol withdrawal
- phenytoin is said not to be as effective in the treatment of alcohol withdrawal seizures

Next question

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Score: **23.2%**

1 ✗
2 ✗
3 ✗
4 ✗

PassMedicine

Question 83 of 117

A 61-year-old businessman presents with a 3-year history of severe itchiness and sores containing 'white fibres' which he said are living 'bugs'. He is otherwise well and takes no regular medication. On examination, there are well-demarcated, scooped-out clean ulcerations with occasional white filaments, some hypopigmented patches, and extensive chronic excoriations. There is sparring between the scapula. Multiple and extensive dermatology and infectious disease outpatient investigations and treatments have failed to find a cause nor improve symptoms.

What is the most likely diagnosis?

Body dysmorphic disorder	5%
Conversion disorder	3%
Delusional parasitosis	69%
Somatic symptom disorder	11%
Tactile hallucinations	13%

Patient with a fixed, false belief (delusion) that they are infested by 'bugs' → delusional parasitosis

Important for me Less important

Delusional parasitosis is the correct answer, as this patient is presenting with signs and symptoms consistent with 'Morgellons' which is regarded as a form of delusional parasitosis. Reported fibres or inanimate materials are often found to be common household/clothing materials (e.g. cotton). Skin lesions are consistent with chronic excoriations and the scooped-out lesion is consistent with repetitive picking of lesions. The hypopigmented patches are healed lesions. Sparring of the area between the scapula indicates the area the hands are unable to reach, and no lesions were evident there.

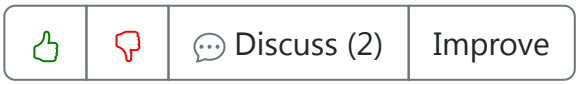
Body dysmorphic disorder is a persistent preoccupation of one or more aspects of one's own physical appearance, in a derogatory manner. The aspect in question is either normal or has only minor defects.

Conversion disorder manifests as neurological symptoms (e.g. weakness, non-epileptic seizures,

negative sensory symptoms, movement disorders) without any identifiable structural pathology.

Somatic symptom disorder is a mental disorder characterised by physical symptoms (e.g. pain, weakness, shortness of breath) of which there is no objective evidence of pathology, AND is associated with the excessive preoccupation of these symptoms.

Tactile hallucinations is not a diagnosis; however, it is a symptom present in patients with delusional parasitosis. The question was asking for a diagnosis.



Next question

Delusional parasitosis

Delusional parasitosis is a relatively rare condition where a patient has a fixed, false belief (delusion) that they are infested by 'bugs' e.g. worms, parasites, mites, bacteria, fungus. This may occur in conjunction with other psychiatric conditions or may present by itself, with patients often otherwise quite functional despite the delusion.

Next question



Textbooks

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PassMedicine

Question 84 of 117

A 25-year-old man demands a CT scan of his abdomen in clinic. He states it is 'obvious' he has cancer despite previous negative investigations. This is an example of a:

Hypochondrial disorder	84%
Conversion disorder	4%
Munchausen's syndrome	5%
Dissociative disorder	1%
Somatisation disorder	6%

Unexplained symptoms

- **S**omatisation = **S**ymptoms
- hypo**C**hondria = **C**ancer

Important for me Less important

The correct answer is **Hypochondrial disorder**. This condition, also known as Illness Anxiety Disorder in the DSM-5, is characterised by a preoccupation with having or acquiring a serious illness. Somatic symptoms are not present or, if they do occur, they are only mild in intensity. If a medical condition is present or there is high risk for developing a medical condition (e.g., strong family history of a disease), the preoccupation is clearly excessive or disproportionate. The patient has performed excessive health-related behaviours (e.g., repeatedly checking his body for signs of illness) or exhibits maladaptive avoidance (e.g., avoiding doctor appointments and hospitals). The illness preoccupation has been present for at least six months but the specific illness feared may change over that period of time.

Conversion disorder, also known as Functional Neurological Symptom Disorder, involves symptoms affecting voluntary motor or sensory function suggesting neurological conditions. However, these symptoms cannot be explained by any neurological or medical condition and are not the result of substance use or better explained by another mental disorder. In this case scenario, the patient does not display any such symptoms hence it's incorrect.

Munchausen's syndrome now referred to as Factitious Disorder Imposed on Self, involves

individuals deliberately producing or feigning physical or psychological symptoms with no obvious gain other than assuming the sick role and receiving attention from healthcare professionals. These patients often have extensive knowledge about medical terminology and diseases which they use to deceive healthcare providers into unnecessary investigations and interventions. The given scenario does not provide information to suggest this diagnosis.

A **Dissociative disorder** refers to conditions involving disruptions or breakdowns of memory, awareness, identity, perception etc., potentially leading to serious problems in an individual's everyday life. They are thought to primarily be caused by psychological trauma rather than organic pathology within the brain. The presented case does not exhibit such features.

Finally, **Somatisation disorder** now referred to as Somatic Symptom Disorder in DSM-5 includes one or more somatic symptoms that are distressing and/or result in significant disruption in daily life associated with excessive thoughts, feelings and behaviours related to these somatic symptoms. It differs from Hypochondriasis where the concern is more about having a disease rather than focusing on specific symptom(s). Thus this option too doesn't fit our case scenario.

Discuss (2) Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder

- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Functional neurological disorder (conversion disorder)

- typically involves loss of motor or sensory function
- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)

- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Dissociative disorder

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor
- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Next question

Textbooks

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Links

Royal College of Physicians

2013 Functional neurological symptoms

5 2

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PassMedicine

Question 85 of 117

A 60-year-old male is admitted to the in-patient psychiatric unit last night. On reviewing him this morning, he is a poor historian, answering most questions minimally and stating he does not need to be here as he is deceased, and hospitals should be for living patients.

What is the name of this delusional disorder and which condition is it most commonly associated with?

De Clerambault's syndrome and Major Depressive Disorder	4%
Cotard syndrome and Major Depressive Disorder	84%
Othello syndrome and Paranoid Schizophrenia	4%
Capgras delusion and Dementia	6%
Charles de Bonnet syndrome and Bipolar Disorder	2%

Cotard syndrome is associated with severe depression

Important for me Less important

This patient is presenting with Cotard's syndrome, a rare subtype of nihilistic delusions, in which they believe they or part of them is dead or does not exist. This is seen most commonly in severe depression, but is also associated with schizophrenia.

Discuss (3) Improve

Next question

Cotard syndrome

Cotard syndrome is a rare mental disorder where the affected patient believes that they (or in some cases just a part of their body) is either dead or non-existent. This delusion is often difficult to treat and can result in significant problems due to patients stopping eating or drinking as they deem it not necessary.

Cotard syndrome is associated with severe depression and psychotic disorders.

Next question

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Score: **23.5%**

1	✗
2	✗
3	✗
4	✗
5	✗
6	✗
7	✓
8	✗
9	✗
10	✗
11	✗
12	✗
13	✗
14	✗
15	✗

PassMedicine

Question 86 of 117

A 36-year-old female is started on haloperidol for treatment-resistant schizophrenia. She presents to her general practitioner with a 1-day history of neck pain and difficulty moving the neck. On examination, she has normal observation except a mild tachycardia of 105 and neck stiffness with restricted range of motion. Her neck is involuntarily flexed to the right. She has normal facial movements.

What is the most likely diagnosis?

Neuroleptic malignant syndrome	9%
Oculogyric crisis	8%
Torticollis	66%
Tardive dyskinesia	13%
Akathisia	3%

Acute dystonia - sustained muscle contraction such as torticollis or oculogyric crisis

Important for me Less important

This patient has experienced acute dystonia secondary to commencing a typical antipsychotic - haloperidol. Torticollis or 'wry' neck can be diagnosed where there is unilateral pain and deviation of the neck with pain on palpation and restricted range of motion.

Neuroleptic malignant syndrome is a medical emergency which occurs in patients taking antipsychotics. It is characterised by altered mental state, generalised rigidity, fever, fluctuating blood pressure and high temperature. This patient has a mild tachycardia which could be explained by pain, given the otherwise normal observations and the lack of any suggestion of altered mental state it is unlikely the correct diagnosis. It should, however, be considered in patients taking antipsychotics.

An oculogyric crisis is a further example of an acute dystonia. Patients experience sustained upward deviation of the eyes, clenched jaw and hyperextension of the back/neck with torticollis. Given that this patient has no facial signs or symptoms, torticollis alone is a more appropriate answer.

Tardive dyskinesia occurs in patients on long term typical antipsychotics and is characterised by uncontrolled facial movements such as lip-smacking.

Akathisia is characterised by severe restlessness with patients having difficulty in sitting still. Patients may rock, tap their legs or cross and uncross the legs. It typically occurs with long term use of antipsychotics.

Discuss (1) Improve

Next question

Antipsychotics

Antipsychotics are a group of drugs used in the management of schizophrenia and other forms of psychosis, mania and agitation. They are usually divided into typical and atypical antipsychotics. The atypical antipsychotics were developed due to the problematic extrapyramidal side-effects which are associated with the first generation of typical antipsychotics.

	Typical antipsychotics	**Atypical antipsychotics**
Mechanism of action	Dopamine D2 receptor antagonists, blocking dopaminergic transmission in the mesolimbic pathways	Act on a variety of receptors (D2, D3, D4, 5-HT)
Adverse effects	Extrapyramidal side-effects and hyperprolactinaemia common	Extrapyramidal side-effects and hyperprolactinaemia less common Metabolic effects
Examples	Haloperidol Chlorpromazine	Clozapine Risperidone Olanzapine

The rest of this section will focus on typical antipsychotics, with atypical antipsychotics covered elsewhere.

Extrapyramidal side-effects (EPSEs)

- Parkinsonism
- acute dystonia

    - sustained muscle contraction (e.g. torticollis, oculogyric crisis)
    - may be managed with procyclidine
- akathisia (severe restlessness)
- tardive dyskinesia (late onset of choreoathetoid movements, abnormal, involuntary, may occur in 40% of patients, may be irreversible, most common is chewing and pouting of jaw)

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Other side-effects

- antimuscarinic: dry mouth, blurred vision, urinary retention, constipation
- sedation, weight gain
- raised prolactin
    - may result in galactorrhoea
    - due to inhibition of the dopaminergic tuberoinfundibular pathway
- impaired glucose tolerance
- neuroleptic malignant syndrome: pyrexia, muscle stiffness
- reduced seizure threshold (greater with atypicals)
- prolonged QT interval (particularly haloperidol)

Next question

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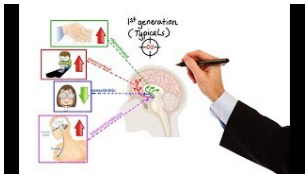
Psychoses and related disorders

Clinical Knowledge Summaries 2 1

Schizophrenia > Prescribing Information > Adverse effects

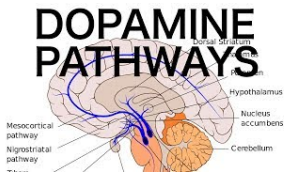
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Antipsychotics

Speed Pharmacology - YouTube 38 0



Antipsychotics, Dopamine, and EPS

Dirty USMLE - YouTube 24 0



Video of patients with tardive dyskinesia

Abnormal Involuntary Movement Scale training video - YouTube 17 3

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Score: **24.4%**

1 ✕

PassMedicine

Question 87 of 117

You are considering prescribing a tricyclic antidepressant for a patient who has not responded to two different types of selective serotonin reuptake inhibitors. Which one of the following tricyclic antidepressants is most dangerous in overdose?

Dosulepin	58%
Imipramine	12%
Clomipramine	8%
Nortriptyline	14%
Lofepramine	8%

Dosulepin - avoid as dangerous in overdose

Important for me Less important

The correct answer is **Dosulepin**. Dosulepin (also known as dothiepin) is considered the most toxic tricyclic antidepressant (TCA) in overdose. It has a narrow therapeutic index and can lead to serious complications such as cardiac arrhythmias, seizures, and even death due to its significant anticholinergic and sodium channel blocking effects. The British National Formulary (BNF) advises against its use wherever possible due to the high risk of fatal toxicity.

Imipramine is another TCA that can be dangerous in overdose, but it is generally less toxic than dosulepin. It has similar anticholinergic properties and can also cause cardiac arrhythmias and seizures, but these tend to occur at higher doses compared to dosulepin.

Clomipramine, while having significant anticholinergic effects like other TCAs, it does not have as high a risk of fatal toxicity as dosulepin. However, it still carries a risk of causing potentially life-threatening serotonin syndrome if overdosed or combined with other serotonergic drugs.

Nortriptyline is considered one of the safer TCAs in terms of overdose potential. It has less anticholinergic side effects compared to other TCAs which reduces the risk of severe outcomes such as arrhythmias and seizures when taken in excess.

Finally, **Lofepramine** is actually considered the safest TCA in overdose. It was designed to be less

cardiotoxic than other TCAs by having a lower affinity for myocardial fast sodium channels which are responsible for many of the serious cardiac side effects seen with TCA overdose. Therefore, while all TCAs carry a risk of harm if taken in large quantities, lofepramine poses the least danger.

Discuss (6) Improve

Next question

Tricyclic antidepressants

Tricyclic antidepressants (TCAs) are used less commonly now for depression due to their side-effects and toxicity in overdose. They are however used widely in the treatment of neuropathic pain, where smaller doses are typically required.

The primary mechanism by which TCAs exert their antidepressant effects is through the inhibition of the reuptake of neurotransmitters

- Serotonin (5-HT): This neurotransmitter has a pivotal role in mood regulation. Inhibition of its reuptake leads to increased concentrations in the synaptic cleft, enhancing serotonergic neurotransmission.
- Noradrenaline (NA): Similar to 5-HT, blocking the reuptake of NA increases its synaptic cleft concentration, intensifying noradrenergic neurotransmission.

As well as 5-HT and NA, tricyclics interact with number of other receptors that contribute to their side-effect profile:

- antagonism of histamine receptors
  - drowsiness
- antagonism of muscarinic receptors
  - dry mouth
  - blurred vision
  - constipation
  - urinary retention
- antagonism of adrenergic receptors
  - postural hypotension
- lengthening of QT interval

Choice of tricyclic

- low-dose amitriptyline is commonly used in the management of neuropathic pain and the prophylaxis of headache (both tension and migraine)

- lofepramine has a lower incidence of toxicity in overdose
- amitriptyline and dosulepin (dothiepin) are considered the most dangerous in overdose

More sedative	Less sedative
Amitriptyline Clomipramine Dosulepin Trazodone*	Imipramine Lofepramine Nortriptyline

*trazodone is technically a 'tricyclic-related antidepressant'

Next question

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Antidepressants

Speed Pharmacology - YouTube 8 0

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Question 88 of 117

A 42-year-old woman presents for review. Her husband reports that she has had an argument with their son which resulted in him leaving home. Since this happened she has not been able to speak. Clinical examination of her throat and chest is unremarkable. Which one of the following terms best describes this presentation?

Aprosodia	2%
Schizophasia	1%
Expressive aphasia	6%
Akinetic mutism	14%
Psychogenic aphonia	78%

Psychogenic aphonia is considered to be a form of conversion disorder. Please see the link for more details.

Discuss (3) Improve

Next question

Aphonia

Aphonia describes the inability to speak. Causes include:

- recurrent laryngeal nerve palsy (e.g. Post-thyroidectomy)
- psychogenic

Next question

PassMedicine

Question 89 of 117

A 73-year-old male patient who lives alone presents with recurrent episodes of pleasant visual hallucinations but no clouding of consciousness or confusion. He tells you he knows the hallucinations are not real. He is normally fit and well with the exception of visual impairment.

Given the likely diagnosis, what ophthalmic condition is he most likely to suffer from?

Glaucoma	5%
Diabetic retinopathy	1%
Retinal detachment	4%
Age-related macular degeneration	80%
Cataract	9%

Age-related macular degeneration is associated with Charles-Bonnet syndrome

Important for me Less important

This patient has Charles-Bonnet syndrome (CBS) as evidenced by visual hallucinations with normal insight on a background of visual impairment. He also lives alone which could be another risk factor for CBS if this leads to him becoming socially isolated. 11-15% of patient with severe visual impairment are thought to have coexisting CBS and experience recurrent, persistent or episodic visual or auditory hallucinations. The most common ophthalmological condition associated with CBS is age-related macular degeneration and hence this is the correct answer.

Glaucoma and cataract are the next most common causes of visual impairment associated with CBS. CBS can, however, occur in any ophthalmic condition making 1,2,3 and 5 all possible but less common causes than age-related macular degeneration.

It is important to note that the hallucinations are related to failing eyesight and are not a sign of an underlying psychiatric condition.

Discuss (3) Improve

Next question

Charles-Bonnet syndrome

Charles-Bonnet syndrome (CBS) is characterised by persistent or recurrent complex hallucinations (usually visual or auditory), occurring in clear consciousness. This is generally against a background of visual impairment (although visual impairment is not mandatory for a diagnosis). Insight is usually preserved. This must occur in the absence of any other significant neuropsychiatric disturbance.

Risk factors include:

- Advanced age
- Peripheral visual impairment
- Social isolation
- Sensory deprivation
- Early cognitive impairment

CBS is equally distributed between sexes and does not show any familial predisposition. The most common ophthalmological conditions associated with this syndrome are age-related macular degeneration, followed by glaucoma and cataract.

Well-formed complex visual hallucinations are thought to occur in 10-30 per cent of individuals with severe visual impairment. Prevalence of CBS in visually impaired people is thought to be between 11 and 15 per cent.

Around a third find the hallucinations themselves an unpleasant or disturbing experience. In a large study published in the British Journal of Ophthalmology, 88% had CBS for 2 years or more, resolving in only 25% at 9 years (thus it is not generally a transient experience).

Cox (2014) Negative outcome Charles Bonnet Syndrome. Br J Ophthalmol.

Next question

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Question 90 of 117

A 63-year-old man presents to his GP for support following the breakdown of his marriage. He has been consuming a bottle of vodka a day for the last month and states that he drinks upon waking in the morning to relieve his feelings of anxiety, however, he has not drunk this morning and now feels unwell.

He is markedly tremulous when sitting, sweating profusely and reports some hallucinations at times when he has abstained from alcohol. His GP arranges for an ambulance and the patient agrees to attend the hospital for further assessment. Whilst waiting for the ambulance to arrive, the patient collapses in the waiting room and has a tonic-clonic seizure. His seizure resolves spontaneously after 45 seconds and the ambulance team escorts him to hospital.

Which of the following describes the most appropriate treatment plan for this patient?

He can be commenced on an outpatient detoxification regime	2%
The patient has alcoholic hallucinosis and requires a psychiatric review	8%
He requires an inpatient detoxification regime with community follow up	76%
He can be discharged 24 hours post seizure if no further seizures with no further input	6%
None of the above	7%

Patients with a history of complex withdrawals from alcohol (i.e. delirium tremens, seizures, blackouts) should be admitted to hospital for monitoring until withdrawals stabilised

Important for me Less important

This patient presents with alcohol dependency and complex withdrawal symptoms i.e. history of hallucinations suggestive of delirium tremens (hallucinations occur with abstinence from alcohol) and withdrawal seizures.

Alcoholic hallucinosis is characterised by auditory hallucinations, delusions and changes in mood during or following chronic alcohol misuse, with symptoms mimicking those seen in patients with schizophrenia. Our patient describes acute symptoms and there is no evidence of delusions, hence alcoholic hallucinosis is unlikely.

All patients with complex withdrawals require a longer period of assessment and should ideally complete a detoxification regime as an inpatient.

Outpatient detoxification is contraindicated in patients with a history of complex withdrawals.

Discuss (2) Improve

Next question

Alcohol withdrawal

Mechanism

- chronic alcohol consumption enhances GABA mediated inhibition in the CNS (similar to benzodiazepines) and inhibits NMDA-type glutamate receptors
- alcohol withdrawal is thought to be lead to the opposite (decreased inhibitory GABA and increased NMDA glutamate transmission)

Features

- symptoms start at 6-12 hours: tremor, sweating, tachycardia, anxiety
- peak incidence of seizures at 36 hours
- peak incidence of delirium tremens is at 48-72 hours: coarse tremor, confusion, delusions, auditory and visual hallucinations, fever, tachycardia

Management

- patients with a history of complex withdrawals from alcohol (i.e. delirium tremens, seizures, blackouts) should be admitted to hospital for monitoring until withdrawals stabilised
- first-line: long-acting benzodiazepines e.g. chlordiazepoxide or diazepam. Lorazepam may be preferable in patients with hepatic failure. Typically given as part of a reducing dose protocol
- carbamazepine also effective in treatment of alcohol withdrawal
- phenytoin is said not to be as effective in the treatment of alcohol withdrawal seizures

Next question

PassMedicine

Question 91 of 117

A 44-year-old man presents to his general practitioner with galactorrhoea and loss of libido. His past medical history includes schizophrenia, hypertension and gastro-oesophageal reflux disease. He is on lansoprazole, amlodipine and clozapine. Aripiprazole was recently discontinued due to lack of response. He smokes 10 cigarettes daily and is currently unemployed.

Examination reveals mild gynaecomastia and is otherwise unremarkable.

Blood tests:

Prolactin	5000 mIU/L	(<325)

Based on the clinical history, which of the options from the list below is the most likely cause of the clinical presentation?

Amlodipine	2%
Aripiprazole	21%
Clozapine	52%
Lansoprazole	2%
Prolactinoma	23%

Hyperprolactinaemia is uncommon with certain atypical antipsychotics - consider other causes such as prolactinoma if prolactin raised

Important for me Less important

Prolactinoma is the correct answer. This is the only option listed that causes an elevated prolactin level. Symptoms of hyperprolactinaemia include loss of libido, galactorrhoea and gynaecomastia. These may precede pressure symptoms (e.g. headache) and clinical findings of visual fields defects in pituitary macroadenomas.

Aripiprazole is incorrect. This atypical antipsychotic is less associated with the development of high prolactin levels when compared to other atypical antipsychotics. Furthermore, we would certainly not expect to see a prolactin level of 5000 mIU/L, which is more typical of a prolactinoma.

Clozapine is incorrect. This atypical antipsychotic is rarely associated with hyperprolactinaemia. If it is, the rise tends to be more modest i.e. 2x the upper limit of normal. A level of 5000 mIU/L makes a prolactinoma more likely.

Lansoprazole is incorrect. It is H2 receptor antagonists (e.g. cimetidine) rather than proton-pump inhibitors that are typically associated with hyperprolactinaemia.

Amlodipine is incorrect. Verapamil is the calcium channel blocker that is associated with hyperprolactinaemia.

Discuss (5) Improve

Next question

Atypical antipsychotics

Atypical antipsychotics should now be used first-line in patients with schizophrenia, according to 2005 NICE guidelines. The main advantage of the atypical agents is a significant reduction in extrapyramidal side-effects.

Adverse effects of atypical antipsychotics

- weight gain
- clozapine is associated with agranulocytosis (see below)
- hyperprolactinaemia

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Examples of atypical antipsychotics

- clozapine
- olanzapine: higher risk of dyslipidemia and obesity
- risperidone
- quetiapine
- amisulpride
- aripiprazole: generally good side-effect profile, particularly for prolactin elevation

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Question 92 of 117

You are looking after a 36-year-old female patient on the ward when you become concerned regarding her behavior towards you. She has made a number of sexually inappropriate comments and on your last review she was wearing seductive underwear. She is often disruptive on the ward making a scene and easily encouraged by other patients. Your consultant advises you to avoid seeing the patient on her own and that he is aware the patient has a personality disorder.

What is her most likely diagnosis?

Histrionic personality disorder	76%
Schizoid personality disorder	6%
Schizotypal personality disorder	5%
Antisocial personality disorder	4%
Borderline personality disorder	10%

Histrionic personality disorder is characterised by inappropriate sexual seductiveness, suggestibility and intense relationships

Important for me Less important

The correct answer is 1 - histrionic personality disorder. This condition is seen in patients who crave being the center of attention, can be sexually inappropriate in behavior or appearance and are highly suggestible. They can develop intense relationships but at other times read more into the intimacy of a relationship that is actually there.

Option 2 is incorrect. Patients with schizoid personality disorder tend to have a lack of interest in sexual interactions making this an unlikely diagnosis based on the patient in question. They are often cold and lack close friendships, preferring to spend time alone.

Patients with schizotypal personality disorder can have odd/eccentric beliefs or behavior. Similarly to the patient in this question they can be inappropriate however struggle to make friends and can be paranoid/suspicious making this less likely the correct answer.

Patients with antisocial personality disorder often fail to comply to social norms in terms of lawful

behavior resulting in multiple arrests. They are prone to getting into fights due to aggressiveness and can be deceitful particularly when seeking material gain. They can have a disregard for safety and lack remorse. This does not describe the patient in the stem.

Option 5 is also incorrect, borderline personality disorder is characterised by emotional instability, impulsive behavior, feelings of emptiness and recurrent attempts at self harm. Similarly to histrionic personality disorder they also have intense relationships however these are often unstable.

Discuss (4) Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	Cluster B: 'Dramatic, Emotional, or Erratic'	Cluster C: 'Anxious and Fearful'
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others
- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour

- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values
- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning
- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

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Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2



Cluster B personality disorders (antisocial, borderline, histrionic, narcissistic)

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Question 93 of 117

A 32-year-old man presents with several months of worsening low mood and behaviours that he feels he cannot control. He often feels distressed and finds that the only way to obtain some relief is to repeat a certain phrase in his mind. He has no significant past medical history and is physically well.

What is this symptom an example of?

Compulsion	61%
Insertion	6%
Intrusion	7%
Obsession	25%
Withdrawal	1%

An obsession is an intrusive, unpleasant and unwanted thought. A compulsion is a senseless action taken to reduce the anxiety caused by the obsession

Important for me Less important

The act of a repetitive behaviour that a patient feels driven to perform, whether mental or physical, is a **compulsion**. Whilst this is a mental compulsion - repeating a phrase in the mind until feeling calmer - a physical compulsion may be an act such as repeatedly washing hands, or checking that a door is locked, until satisfied.

Thought **insertion** is the feeling of one's thoughts not being one's own - belonging to someone else and having been inserted into the mind. This does not fit with the scenario presented above. Insertion is a feature of schizophrenia.

An **intrusive** thought is an unwelcome, involuntary thought. These may be experienced by the general population, but if frequent and distressing, may develop into obsessions, which are seen as a more severe form of intrusive thought.

Obsessions, as mentioned above, are unwanted, intrusive thoughts that repeatedly enter the mind. These cause distress/discomfort. Coupled with compulsions, these form part of obsessive-

compulsive disorder (OCD).

Thought **withdrawal** is a delusion, like insertion, where the patient believes that thoughts have been removed from their mind by a third-party. This is found in schizophrenia.

Discuss (1) Improve

Next question

Obsessive-compulsive disorder

Obsessive-compulsive disorder (OCD) is characterised by the presence of either obsessions or compulsions, but commonly both. The symptoms can cause significant functional impairment and/ or distress.

An obsession is defined as an unwanted intrusive thought, image or urge that repeatedly enters the person's mind. Compulsions are repetitive behaviours or mental acts that the person feels driven to perform. A compulsion can either be overt and observable by others, such as checking that a door is locked, or a covert mental act that cannot be observed, such as repeating a certain phrase in one's mind.

It is thought that 1 to 3% of the population have OCD.

Risk factors

- family history
- age: peak onset is between 10-20 years
- pregnancy/postnatal period
- history of abuse, bullying, neglect

Management

- NICE recommend classifying impairment into mild, moderate or severe
  - they recommend the use of the Y-BOCS scale
  - an example of 'severe' OCD would be someone who spends > 3 hours a day on their obsessions/compulsions, has severe interference/distress and has very little control/resistance
- If functional impairment is mild
  - low-intensity psychological treatments: cognitive behavioural therapy (CBT) including exposure and response prevention (ERP)
  - If this is insufficient or can't engage in psychological therapy, then offer a choice of either a course of an SSRI or more intensive CBT (including ERP)

- If moderate functional impairment
  - offer a choice of either a course of an SSRI (any SSRI for OCD but fluoxetine specifically for body dysmorphic disorder) or more intensive CBT (including ERP)
  - consider clomipramine (as an alternative first-line drug treatment to an SSRI) if the person prefers clomipramine or has had a previous good response to it, or if an SSRI is contraindicated
- If severe functional impairment
  - refer to the secondary care mental health team for assessment
  - whilst awaiting assessment - offer combined treatment with an SSRI and CBT (including ERP) or consider clomipramine as an alternative as above

Notes on treatments

- ERP is a psychological method which involves exposing a patient to an anxiety provoking situation (e.g. for someone with OCD, having dirty hands) and then stopping them engaging in their usual safety behaviour (e.g. washing their hands). This helps them confront their anxiety and the habituation leads to the eventual extinction of the response
- if treatment with SSRI is effective then continue for at least 12 months to prevent relapse and allow time for improvement
- compared to depression, the SSRI usually requires a higher dose and a longer duration of treatment (at least 12 weeks) for an initial response

Next question

Textbooks

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Links

National Institute of Mental Health 1 2

What is Obsessive-Compulsive Disorder (OCD)?

NICE 2 5

2005 Obsessive-compulsive disorder and body dysmorphic disorder: treatment

Report broken link

Media



Obsessive compulsive disorder

Osmosis - YouTube 4 3

Report broken media

Score: **22.6%**

1	✗
2	✗
3	✗
4	✗
5	✗
6	✗
7	✓
8	✗
9	✗
10	✗
11	✗
12	✗
13	✗
14	✗
15	✗
16	✗

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Question 94 of 117

A 54-year-old man with a history of depression presents for review. He was started on fluoxetine eight weeks ago and is now requesting to stop his medication as he feels so well. What should be recommended regarding his treatment?

It should be stopped straight away	7%
It should be continued for at least another 6 weeks	15%
It should be continued for at least another 3 months	10%
It should be continued for at least another 6 months	65%
It should be continued for at least another 12 months	3%

Antidepressants should be continued for at least 6 months after remission of symptoms to decrease risk of relapse

Important for me Less important

This greatly reduces the risk of relapse. Patients should be reassured that antidepressants are not addictive.

Discuss (4) Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants

- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change

- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

Next question

Textbooks

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Links

NICE

2 6

2022 Depression in adults: treatment and management

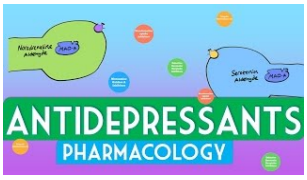
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Media



Antidepressants

Speed Pharmacology - YouTube 30 2



Antidepressants Pharmacology

Soton Brain Hub - YouTube 9 3

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Score: **22.3%**

1	✗
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16	✗
17	✓

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Question 95 of 117

A 72-year-old man who is having trouble sleeping is prescribed temazepam. What is the mechanism of action of temazepam?

Inhibits the effect of acetylcholine	3%
Enhances the effect of gamma-aminobutyric acid	62%
Inhibits the effect gamma-aminobutyric acid	26%
Inhibits the effect of glutamate	6%
Inhibits the effect of noradrenaline	3%

Benzodiazepines enhance the effect of GABA, the main inhibitory neurotransmitter

Important for me Less important

The correct answer is **Enhances the effect of gamma-aminobutyric acid**. Temazepam belongs to a class of drugs known as benzodiazepines. Its mechanism of action involves enhancing the effect of gamma-aminobutyric acid (GABA), an inhibitory neurotransmitter in the brain. This enhancement is achieved by increasing the frequency of chloride channel opening within the GABA-A receptor complex, leading to hyperpolarisation of neurons and ultimately decreased neuronal excitability.

Discussing the incorrect options:

Inhibits the effect of acetylcholine is not correct. Anticholinergic drugs inhibit the effects of acetylcholine, a neurotransmitter involved in many functions including muscle movement, heart rate regulation, learning and memory. Examples include atropine and scopolamine. Temazepam does not have this mechanism.

Inhibits the effect gamma-aminobutyric acid is also incorrect. Drugs that inhibit GABA usually increase neuronal activity rather than decrease it, which can lead to seizures or anxiety rather than sedation. An example would be flumazenil, a GABA antagonist used as an antidote for benzodiazepine overdose.

Inhibits the effect of glutamate is not correct either. Glutamate is an excitatory neurotransmitter

in CNS and its inhibition would indeed result in reduced neuronal activity similar to enhancing GABA's effects. However, temazepam doesn't work by inhibiting glutamate; drugs that do this are typically NMDA receptor antagonists like memantine used in Alzheimer's disease treatment.

Finally, **Inhibits the effect of noradrenaline** is also incorrect. Noradrenaline (norepinephrine) inhibitors are typically used as antihypertensives or antidepressants such as beta-blockers or selective noradrenaline reuptake inhibitors (NARIs). They do not primarily induce sleep or reduce anxiety which are key therapeutic effects of temazepam.

Discuss | Improve

Next question

Benzodiazepines

Benzodiazepines enhance the effect of the inhibitory neurotransmitter gamma-aminobutyric acid (GABA) by increasing the **frequency** of chloride channels. They therefore are used for a variety of purposes:

- sedation
- hypnotic
- anxiolytic
- anticonvulsant
- muscle relaxant

Patients commonly develop a tolerance and dependence to benzodiazepines and care should therefore be exercised on prescribing these drugs. The Committee on Safety of Medicines advises that benzodiazepines are only prescribed for a short period of time (2-4 weeks).

The BNF gives advice on how to withdraw a benzodiazepine. The dose should be withdrawn in steps of about 1/8 (range 1/10 to 1/4) of the daily dose every fortnight. A suggested protocol for patients experiencing difficulty is given:

- switch patients to the equivalent dose of diazepam
- reduce dose of diazepam every 2-3 weeks in steps of 2 or 2.5 mg
- time needed for withdrawal can vary from 4 weeks to a year or more

If patients withdraw too quickly from benzodiazepines they may experience benzodiazepine withdrawal syndrome, a condition very similar to alcohol withdrawal syndrome. This may occur up to 3 weeks after stopping a long-acting drug. Features include:

- insomnia
- irritability
- anxiety
- tremor
- loss of appetite
- tinnitus
- perspiration
- perceptual disturbances
- seizures

$GABA_A$ drugs

- benzodiazipines increase the **frequency** of chloride channels
- barbiturates increase the **duration** of chloride channel opening

Frequently **Ben**d - **Dur**ing **Barb**eque

...or...

Barbi**durat**es increase **durat**ion & **Fre**ndodiazepines increase **fre**quency

Next question

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Question 96 of 117

A 23-year-old woman presents to her GP with troubling symptoms. Eight weeks ago, she was involved in a severe road traffic accident. Although physically well after the accident, she reports experiencing flashbacks since then, being overly vigilant when crossing the road, and generally having difficulty focusing at work.

Which of the following features would best support the likely diagnosis?

Delusional beliefs	7%
Emotional detachment	54%
Excessive sleep	6%
Nystagmus	4%
Paranoid ideation	30%

Common features of PTSD

- re-experiencing e.g. flashbacks, nightmares
- avoidance e.g. avoiding people or situations
- hyperarousal e.g.hypervigilance, sleep problems

Important for me Less important

The correct answer is emotional detachment. The diagnosis here is that of post-traumatic stress disorder (PTSD), with these symptoms being present for over 1 month following a traumatic experience. Patients are often emotionally numbed - demonstrating an inability to experience feelings fully, and generally feeling detached emotionally.

Delusional beliefs do not usually manifest in PTSD. If she were displaying signs of this, it would be prudent to consider an alternative diagnosis, as this is a psychotic feature.

Excessive sleep is not usually part of PTSD - the opposite is normally true. Patients have difficulty sleeping, often wake up during the night, and experience nightmares.

Nystagmus is not associated with PTSD. There is, however, a link between eyes and PTSD - the

current conventional therapy for PTSD is eye movement desensitisation and reprocessing therapy.

Paranoid ideation is also not usually a feature of PTSD. If this were being displayed, alternative diagnoses should be considered.

Discuss (3) Improve

Next question

Post-traumatic stress disorder

Post-traumatic stress disorder (PTSD) can develop in people of any age following a traumatic event, for example, a major disaster or childhood sexual abuse. It encompasses what became known as 'shell shock' following the first world war. One of the DSM-IV diagnostic criteria is that symptoms have been present for more than one month.

Features

- re-experiencing: flashbacks, nightmares, repetitive and distressing intrusive images
- avoidance: avoiding people, situations or circumstances resembling or associated with the event
- hyperarousal: hypervigilance for threat, exaggerated startle response, sleep problems, irritability and difficulty concentrating
- emotional numbing - lack of ability to experience feelings, feeling detached

from other people

- depression
- drug or alcohol misuse
- anger
- unexplained physical symptoms

Management

- following a traumatic event single-session interventions (often referred to as debriefing) are not recommended
- watchful waiting may be used for mild symptoms lasting less than 4 weeks
- military personnel have access to treatment provided by the armed forces
- trauma-focused cognitive behavioural therapy (CBT) or eye movement desensitisation and reprocessing (EMDR) therapy may be used in more severe cases
- drug treatments for PTSD should not be used as a routine first-line treatment for adults. If drug treatment is used then venlafaxine or a selective serotonin reuptake inhibitor (SSRI),

such as sertraline should be tried. In severe cases, NICE recommends that risperidone may be used

Next question

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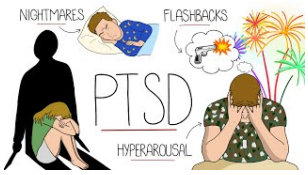
NICE

2018 PTSD guidelines

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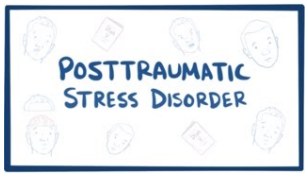
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Media



Post-traumatic stress disorder

Rhesus Medicine - YouTube 3 0



Post-traumatic Stress Disorder (PTSD)

Osmosis - YouTube

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Question 97 of 117

A 25-year-old man with a history of schizophrenia is prescribed olanzapine. Which one of the following adverse effects is he most likely to experience?

Anorexia	1%
Parkinsonism	5%
Hypertension	2%
Weight gain	82%
Agranulocytosis	11%

Weight gain is an extremely common adverse effect of atypical antipsychotics such as olanzapine

Discuss (1) | Improve

Next question

Atypical antipsychotics

Atypical antipsychotics should now be used first-line in patients with schizophrenia, according to 2005 NICE guidelines. The main advantage of the atypical agents is a significant reduction in extrapyramidal side-effects.

Adverse effects of atypical antipsychotics

- weight gain
- clozapine is associated with agranulocytosis (see below)
- hyperprolactinaemia

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Examples of atypical antipsychotics

- clozapine
- olanzapine: higher risk of dyslipidemia and obesity
- risperidone
- quetiapine
- amisulpride
- aripiprazole: generally good side-effect profile, particularly for prolactin elevation

Next question

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2014 Schizophrenia guidelines

BNF 1 1

Clozapine

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Question 98 of 117

A 38-year-old man is reviewed by his general practitioner. He reports difficulties in maintaining positive relationships with colleagues.

On further questioning, it becomes clear that the man has a very strict value system and moral code. He is inflexible with respect to different beliefs and work practices and this inflexibility makes it difficult to form relationships with colleagues, collaborate or delegate.

What type of personality disorder best describes this patient?

Antisocial personality disorder	19%
Borderline personality disorder	7%
Narcissistic personality disorder	15%
Obsessive-compulsive personality disorder	52%
Paranoid personality disorder	6%

Patients with obsessive-compulsive personality can be rigid with respect to morals, ethics and values and often are reluctant to surrender work to others

Important for me Less important

An obsessive-compulsive personality disorder is correct. Patients with this personality disorder are very rigid with respect to morals, ethics and values and are reluctant to surrender work to others, as in this case. Other features are preoccupation with details, rules, lists and orders and perfectionism impairing the ability to complete tasks.

An antisocial personality disorder is incorrect. This personality disorder is characterized by aggression, repeated unlawful behaviour, deception and aggression.

A borderline personality disorder is incorrect. This personality disorder is characterized by an unstable self-image, unstable interpersonal relationships, efforts to avoid abandonment and chronic feelings of emptiness.

A paranoid personality disorder is incorrect. This personality disorder is characterized by

hypersensitivity to insult, an unwarranted tendency to question the loyalty of friends and preoccupation with conspiratorial beliefs and hidden meaning.

The narcissistic personality is incorrect. This is characterized by a grandiose sense of self-importance, sense of entitlement, lack of empathy and preoccupation with fantasies of unlimited success, power or beauty.

Discuss (2) Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	Cluster B: 'Dramatic, Emotional, or Erratic'	Cluster C: 'Anxious and Fearful'
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others
- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities

- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness

- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values
- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning
- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

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Media



Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2



Cluster B personality disorders (antisocial, borderline, histrionic, narcissistic)

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Question 99 of 117

A 42-year-old man with mental health issues is reviewed. The patient has experienced symptoms in keeping with severe depression for several months and he reports little improvement with cognitive behaviour therapy.

There has been a significant deterioration in his mood and admits to a failed overdose a few weeks ago and he reports still having suicidal thoughts occasionally. Given his condition it is recommended he commence an anti-depressant but one with a lower risk of toxicity in overdose. He has no other medical conditions and is not on any medications.

What medication should be avoided?

Amoxapine	3%
Desipramine	7%
Dosulepin	42%
Lofepramine	26%
Nortriptyline	23%

Dosulepin - avoid as dangerous in overdose

Important for me Less important

Dosulepin, a tricyclic antidepressant, was previously prescribed for managing depression and anxiety. However, due to it posing a significant risk in overdose, it is rarely used and not recommended particularly as a first-line agent or in patients with a high risk of overdose. In excessive amounts, dosulepin can lead to life-threatening complications, including cardiac arrhythmias, seizures, and respiratory depression. Its toxicity arises from the blockade of various receptors, such as histaminic, cholinergic, and adrenergic receptors. The narrow therapeutic index increases the likelihood of severe adverse effects even with a slight overdose.

Amoxapine is a tetracyclic antidepressant used to treat depressive disorders. It possesses a unique chemical structure, combining tricyclic and neuroleptic properties. One notable aspect of amoxapine is its relatively safer drug profile in overdose compared to some other tricyclic antidepressants. In instances of overdose, amoxapine tends to produce milder toxicity symptoms.

This is attributed to its metabolite, amoxapine-2-OH, which acts as a serotonin reuptake inhibitor, potentially mitigating the severity of adverse effects associated with overdose.

Desipramine is a tricyclic antidepressant primarily used to treat depressive disorders. Desipramine has a relatively safer drug profile in overdose compared to some other tricyclic antidepressants attributed to its selective inhibition of norepinephrine reuptake, which leads to a milder side effect profile and reduced toxicity. Desipramine's lower affinity for receptors associated with adverse effects, such as anticholinergic and cardiovascular effects, contributes to its decreased risk of severe complications in overdose situations.

Lofepramine, a tricyclic antidepressant, is known for its relatively safer drug profile in overdose compared to some other tricyclic antidepressants. Its active metabolite, desipramine, is produced in smaller amounts, leading to reduced toxicity. Lofepramine's selective inhibition of norepinephrine reuptake, coupled with a lower affinity for receptors associated with adverse effects, contributes to its diminished risk of severe complications in overdose.

Nortriptyline, a tricyclic antidepressant, has a relatively safer drug profile in overdose when compared to other tricyclic antidepressants, primarily attributed to its selective inhibition of norepinephrine reuptake, leading to a more favourable side effect profile and reduced toxicity. Nortriptyline's lower affinity for receptors associated with adverse effects, such as anticholinergic and cardiovascular effects, contributes to its diminished risk of severe complications in overdose.

Discuss Improve

Next question

Tricyclic antidepressants

Tricyclic antidepressants (TCAs) are used less commonly now for depression due to their side-effects and toxicity in overdose. They are however used widely in the treatment of neuropathic pain, where smaller doses are typically required.

The primary mechanism by which TCAs exert their antidepressant effects is through the inhibition of the reuptake of neurotransmitters

- Serotonin (5-HT): This neurotransmitter has a pivotal role in mood regulation. Inhibition of its reuptake leads to increased concentrations in the synaptic cleft, enhancing serotonergic neurotransmission.
- Noradrenaline (NA): Similar to 5-HT, blocking the reuptake of NA increases its synaptic cleft concentration, intensifying noradrenergic neurotransmission.

As well as 5-HT and NA, tricyclics interact with number of other receptors that contribute to their side-effect profile:

- antagonism of histamine receptors
  - drowsiness
- antagonism of muscarinic receptors
  - dry mouth
  - blurred vision
  - constipation
  - urinary retention
- antagonism of adrenergic receptors
  - postural hypotension
- lengthening of QT interval

Choice of tricyclic

- low-dose amitriptyline is commonly used in the management of neuropathic pain and the prophylaxis of headache (both tension and migraine)
- lofepramine has a lower incidence of toxicity in overdose
- amitriptyline and dosulepin (dothiepin) are considered the most dangerous in overdose

More sedative	**Less sedative**
Amitriptyline Clomipramine Dosulepin Trazodone*	Imipramine Lofepramine Nortriptyline

*trazodone is technically a 'tricyclic-related antidepressant'

Next question

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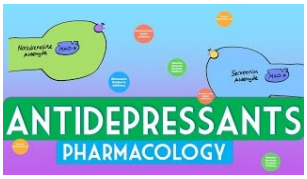
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Antidepressants

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Antidepressants Pharmacology

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Score: **21.2%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗
10 ✗

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Question 100 of 117

A 34-year-old ex-soldier with a history of post-traumatic stress disorder returns for review. He has had a course of eye movement desensitisation and reprocessing therapy which was not helpful and is reluctant to try cognitive behavioural therapy. Of the options listed, which medication may be useful in such patients?

Haloperidol	6%
Diazepam	8%
Venlafaxine	78%
Topiramate	3%
Bupropion	4%

If CBT or EMDR therapy are ineffective in PTSD, the first line drug treatments are venlafaxine or a SSRI

Important for me Less important

The correct answer in this case is **Venlafaxine**. Venlafaxine is a serotonin-norepinephrine reuptake inhibitor (SNRI) that has been shown to be effective in the treatment of post-traumatic stress disorder (PTSD). It works by increasing the levels of serotonin and norepinephrine in the brain, which can help improve mood, reduce anxiety, and alleviate symptoms associated with PTSD. According to UK guidelines, selective serotonin reuptake inhibitors (SSRIs) such as sertraline and paroxetine are considered first-line treatments for PTSD; however, SNRIs like venlafaxine can also be used if SSRIs are not effective or not tolerated.

Haloperidol is an antipsychotic medication that is primarily used to treat schizophrenia and other psychotic disorders. While it may have some limited use in managing agitation or aggression associated with PTSD, it does not directly address the core symptoms of PTSD and would not be considered a first-line treatment option.

Diazepam is a benzodiazepine commonly used for short-term management of anxiety disorders. However, benzodiazepines are generally not recommended for long-term treatment of PTSD due to their potential for dependence and tolerance. Additionally, they do not address the underlying issues contributing to PTSD and may even interfere with the effectiveness of psychological

therapies like cognitive behavioural therapy.

Topiramate is an anticonvulsant medication that has been studied as a potential treatment for PTSD but has shown mixed results in clinical trials. It is primarily used to treat epilepsy and migraine headaches. Topiramate has not been established as a first-line treatment for PTSD in UK guidelines.

Bupropion is an atypical antidepressant that acts on dopamine and norepinephrine neurotransmitters. It is primarily used to treat major depressive disorder and as a smoking cessation aid. While it may have some off-label use in anxiety disorders, it has not been well-established as an effective treatment for PTSD and would not be considered a first-line option.

Discuss | Improve

Next question

Post-traumatic stress disorder

Post-traumatic stress disorder (PTSD) can develop in people of any age following a traumatic event, for example, a major disaster or childhood sexual abuse. It encompasses what became known as 'shell shock' following the first world war. One of the DSM-IV diagnostic criteria is that symptoms have been present for more than one month.

Features

- re-experiencing: flashbacks, nightmares, repetitive and distressing intrusive images
- avoidance: avoiding people, situations or circumstances resembling or associated with the event
- hyperarousal: hypervigilance for threat, exaggerated startle response, sleep problems, irritability and difficulty concentrating
- emotional numbing - lack of ability to experience feelings, feeling detached

from other people

- depression
- drug or alcohol misuse
- anger
- unexplained physical symptoms

Management

- following a traumatic event single-session interventions (often referred to as debriefing) are not recommended

- watchful waiting may be used for mild symptoms lasting less than 4 weeks
- military personnel have access to treatment provided by the armed forces
- trauma-focused cognitive behavioural therapy (CBT) or eye movement desensitisation and reprocessing (EMDR) therapy may be used in more severe cases
- drug treatments for PTSD should not be used as a routine first-line treatment for adults. If drug treatment is used then venlafaxine or a selective serotonin reuptake inhibitor (SSRI), such as sertraline should be tried. In severe cases, NICE recommends that risperidone may be used

Next question

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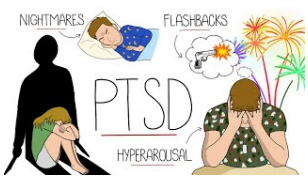
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2018 PTSD guidelines

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Post-traumatic stress disorder

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Question 101 of 117

Which one of the following features is least recognised in long-term lithium use?

Alopecia	33%
Weight gain	15%
Fine tremor	14%
Goitre	15%
Diarrhoea	23%

All the above side-effects, with the exception of alopecia, may be seen in patients taking lithium

Discuss (6) | Improve

Next question

Lithium

Lithium is mood stabilising drug used most commonly prophylactically in bipolar disorder but also as an adjunct in refractory depression. It has a very narrow therapeutic range (0.4-1.0 mmol/L) and a long plasma half-life being excreted primarily by the kidneys.

Mechanism of action - not fully understood, two theories:

- interferes with inositol triphosphate formation
- interferes with cAMP formation

Adverse effects

- nausea/vomiting, diarrhoea
- fine tremor
- nephrotoxicity: polyuria, secondary to nephrogenic diabetes insipidus
- thyroid enlargement, may lead to hypothyroidism
- ECG: T wave flattening/inversion

- weight gain
- idiopathic intracranial hypertension
- leucocytosis
- hyperparathyroidism and resultant hypercalcaemia

Monitoring of patients on lithium therapy

- inadequate monitoring of patients taking lithium is common - NICE and the National Patient Safety Agency (NPSA) have issued guidance to try and address this. As a result it is often an exam hot topic
- when checking lithium levels, the sample should be taken 12 hours post-dose
- after starting lithium levels should be performed weekly and after each dose change until concentrations are stable
- once established, lithium blood level should 'normally' be checked every 3 months
- after a change in dose, lithium levels should be taken a week later and weekly until the levels are stable.
- thyroid and renal function should be checked every 6 months
- patients should be issued with an information booklet, alert card and record book

Next question

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Lithium

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Question 102 of 117

A patient you are looking after is started on imipramine for depression. Which combination of side-effects is most likely to be seen in a patient taking this class of antidepressants?

Dry mouth + urinary frequency	20%
Hypertension + sweating	3%
Gastrointestinal bleeding + dyspepsia	9%
Headache + myoclonus	3%
Blurred vision + dry mouth	64%

These antimuscarinic side-effects are more common with imipramine than other types of tricyclic antidepressants.

Discuss (3) | Improve

Next question

Tricyclic antidepressants

Tricyclic antidepressants (TCAs) are used less commonly now for depression due to their side-effects and toxicity in overdose. They are however used widely in the treatment of neuropathic pain, where smaller doses are typically required.

The primary mechanism by which TCAs exert their antidepressant effects is through the inhibition of the reuptake of neurotransmitters

- Serotonin (5-HT): This neurotransmitter has a pivotal role in mood regulation. Inhibition of its reuptake leads to increased concentrations in the synaptic cleft, enhancing serotonergic neurotransmission.
- Noradrenaline (NA): Similar to 5-HT, blocking the reuptake of NA increases its synaptic cleft concentration, intensifying noradrenergic neurotransmission.

As well as 5-HT and NA, tricyclics interact with number of other receptors that contribute to their side-effect profile:

- antagonism of histamine receptors
  - drowsiness
- antagonism of muscarinic receptors
  - dry mouth
  - blurred vision
  - constipation
  - urinary retention
- antagonism of adrenergic receptors
  - postural hypotension
- lengthening of QT interval

Choice of tricyclic

- low-dose amitriptyline is commonly used in the management of neuropathic pain and the prophylaxis of headache (both tension and migraine)
- lofepramine has a lower incidence of toxicity in overdose
- amitriptyline and dosulepin (dothiepin) are considered the most dangerous in overdose

More sedative	**Less sedative**
Amitriptyline Clomipramine Dosulepin Trazodone*	Imipramine Lofepramine Nortriptyline

*trazodone is technically a 'tricyclic-related antidepressant'

Next question

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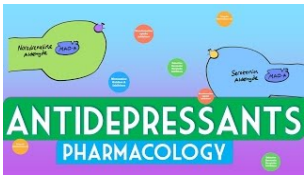
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Media



Antidepressants

Speed Pharmacology - YouTube 8 0



Antidepressants Pharmacology

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Score: **22.5%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗
10 ✗

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Question 103 of 117

A 82-year-old female who has glaucoma starts to experience visual hallucinations which include seeing goldfish, black boxes and mud sliding down shelves. She is completely blind in the right eye and only partially sighted in the left eye. What is the most likely diagnosis?

Schizophrenia	2%
Delirium	1%
Charles Bonnet syndrome	90%
Peduncular hallucinosis	5%
Anton's syndrome	2%

In a patient who is partially or fully blind and experiencing visual hallucinations, Charles Bonnet syndrome should be considered. Delirium and schizophrenia also present with visual hallucinations, but with the history of blindness, Charles Bonnet syndrome is the more likely diagnosis.

Anton's syndrome is is a rare symptom of brain damage occurring in the occipital lobe characterised by cortical blindness, but will not accept they are blind despite being told that they are. They don't have visual hallucinations

Peduncular hallucinosis is a rare neurological disorder that causes vivid visual hallucinations in dark environments which last for several minutes. They typically occur after a midbrain stroke. This diagnosis is less likely given the history of blindness.

Discuss (4) | Improve

Next question

Charles-Bonnet syndrome

Charles-Bonnet syndrome (CBS) is characterised by persistent or recurrent complex hallucinations (usually visual or auditory), occurring in clear consciousness. This is generally against a background of visual impairment (although visual impairment is not mandatory for a diagnosis). Insight is usually preserved. This must occur in the absence of any other significant neuropsychiatric disturbance.

Risk factors include:

- Advanced age
- Peripheral visual impairment
- Social isolation
- Sensory deprivation
- Early cognitive impairment

CBS is equally distributed between sexes and does not show any familial predisposition. The most common ophthalmological conditions associated with this syndrome are age-related macular degeneration, followed by glaucoma and cataract.

Well-formed complex visual hallucinations are thought to occur in 10-30 per cent of individuals with severe visual impairment. Prevalence of CBS in visually impaired people is thought to be between 11 and 15 per cent.

Around a third find the hallucinations themselves an unpleasant or disturbing experience. In a large study published in the British Journal of Ophthalmology, 88% had CBS for 2 years or more, resolving in only 25% at 9 years (thus it is not generally a transient experience).

Cox (2014) Negative outcome Charles Bonnet Syndrome. Br J Ophthalmol.

Next question

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Question 104 of 117

A patient with a history of depression presents for review. Which one of the following suggests an increased risk of suicide?

Being 25-years-old	8%
History of arm cutting	85%
Being married	1%
Female sex	4%
Having a busy job	2%

Whilst arm cutting may sometimes be characterised as attention-seeking or 'releasing the pain' studies show that any history of deliberate self harm significantly increases the risk of suicide. Employment is a protective factor

Discuss (3) | Improve

Next question

Suicide: risk factors

The risk stratification of psychiatric patients into 'high', 'medium' or 'low risk' is common in clinical practice. Questions based on a patient's suicide risk are therefore often seen. However, it should be noted that there is a paucity of evidence addressing the positive predictive value of individual risk factors. An interesting review in the BMJ (BMJ 2017;359:j4627) concluded that 'there is no evidence that these assessments can usefully guide decision making' and noted that 50% of suicides occur in patients deemed 'low risk'.

Whilst the evidence base is relatively weak, there are a number of factors shown to be associated with an increased risk of suicide

- male sex (hazard ratio (HR) approximately 2.0)
- history of deliberate self-harm (HR 1.7)

- alcohol or drug misuse (HR 1.6)
- history of mental illness
  - depression
  - schizophrenia: NICE estimates that 10% of people with schizophrenia will complete suicide
- history of chronic disease
- advancing age
- unemployment or social isolation/living alone
- being unmarried, divorced or widowed

If a patient has actually attempted suicide, there are a number of factors associated with an increased risk of completed suicide at a future date:

- efforts to avoid discovery
- planning
- leaving a written note
- final acts such as sorting out finances
- violent method

Protective factors

There are, of course, factors which reduce the risk of a patient committing suicide. These include

- family support
- having children at home
- religious belief

Next question

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Question 105 of 117

Which one of the following is **not** a recognised feature of anorexia nervosa?

Hypokalaemia	8%
Low LH	4%
Impaired glucose tolerance	28%
Low FSH	4%
Reduced growth hormone levels	57%

Anorexia features

- most things low
- **G**'s and **C**'s raised: **g**rowth hormone, **g**lucose, salivary **g**lands, **c**ortisol, **c**holesterol, **c**arotinaemia

Important for me Less important

Discuss (4) Improve

Next question

Anorexia nervosa: features

Anorexia nervosa is associated with a number of characteristic clinical signs and physiological abnormalities which are summarised below

Features

- reduced body mass index
- bradycardia
- hypotension

- enlarged salivary glands

Physiological abnormalities

- hypokalaemia
- low FSH, LH, oestrogens and testosterone
- raised cortisol and growth hormone
- impaired glucose tolerance
- hypercholesterolaemia
- hypercarotinaemia
- low T3

Next question

Textbooks

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Extended textbook

Media



Anorexia nervosa

Osmosis - YouTube 12 3

Report broken media

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Question 106 of 117

A 34-year-old man confides in you that he experienced childhood sexual abuse. Which one of the following features is not a characteristic feature of post-traumatic stress disorder?

Hyperarousal	17%
Emotional numbing	6%
Nightmares	2%
Loss of inhibitions	71%
Avoidance	4%

The correct answer is **Loss of inhibitions**. Post-Traumatic Stress Disorder (PTSD) is a mental health condition triggered by experiencing or witnessing a terrifying event. Its symptoms are generally grouped into four types: intrusive memories, avoidance, negative changes in thinking and mood, and changes in physical and emotional reactions (hyperarousal). Loss of inhibitions is not typically associated with PTSD. It refers to the inability to control one's impulses or behaviour, which can be seen in conditions such as mania or certain personality disorders.

Hyperarousal, on the other hand, is a characteristic feature of PTSD. This term refers to the state of being constantly on guard for threats, leading to restlessness, sleep disturbances and difficulty concentrating. It represents the body's heightened response to fear and stress.

Emotional numbing also occurs in PTSD. This involves feeling detached from others and emotionally unresponsive. Individuals may lose interest in activities they once enjoyed and find it difficult to experience positive emotions.

Nightmares are part of the **Intrusive memories** symptom category of PTSD. They involve recurrent, unwanted distressing dreams about the traumatic event. These nightmares can significantly disrupt sleep patterns and contribute to fear and anxiety.

Lastly, **Avoidance** is another key feature of PTSD where individuals will actively avoid places, people or thoughts that remind them of the traumatic event as these triggers could cause distressing memories or flashbacks.

In conclusion, while hyperarousal, emotional numbing, nightmares and avoidance are all

characteristic features of post-traumatic stress disorder according to DSM-5 criteria; loss of inhibitions isn't typically associated with this condition.

Discuss (5) Improve

Next question

Post-traumatic stress disorder

Post-traumatic stress disorder (PTSD) can develop in people of any age following a traumatic event, for example, a major disaster or childhood sexual abuse. It encompasses what became known as 'shell shock' following the first world war. One of the DSM-IV diagnostic criteria is that symptoms have been present for more than one month.

Features

- re-experiencing: flashbacks, nightmares, repetitive and distressing intrusive images
- avoidance: avoiding people, situations or circumstances resembling or associated with the event
- hyperarousal: hypervigilance for threat, exaggerated startle response, sleep problems, irritability and difficulty concentrating
- emotional numbing - lack of ability to experience feelings, feeling detached

from other people

- depression
- drug or alcohol misuse
- anger
- unexplained physical symptoms

Management

- following a traumatic event single-session interventions (often referred to as debriefing) are not recommended
- watchful waiting may be used for mild symptoms lasting less than 4 weeks
- military personnel have access to treatment provided by the armed forces
- trauma-focused cognitive behavioural therapy (CBT) or eye movement desensitisation and reprocessing (EMDR) therapy may be used in more severe cases
- drug treatments for PTSD should not be used as a routine first-line treatment for adults. If drug treatment is used then venlafaxine or a selective serotonin reuptake inhibitor (SSRI), such as sertraline should be tried. In severe cases, NICE recommends that risperidone may be used

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Question 107 of 117

A 93-year-old female patient on the ward is brought to your attention by the nurses. They are concerned she is experiencing visual hallucinations. She was admitted following a decline in mobility that was thought to be secondary to a urinary tract infection (UTI). She has improved clinically and biochemically during her time on the ward and she is awaiting a increase package of care before discharge.

You review the patient who tells you she earlier saw very small children running across the end of the bed. She reports she regularly sees similar images at home and has done so for many years. She has a background of hypertension, depression and age-related macular degeneration. What is the most appropriate step in this patient's management?

Reassure the patient	65%
Urgent psychiatric evaluation	20%
Consider treatment failure of her UTI	3%
Prescribe 40mg of chlordiazepoxide	4%
Consider commencing an antidepressant	8%

This most likely represents Charles Bonnet syndrome. Reassurance is usually the best treatment, helping people to understand and come to terms with their hallucinations. It is importance to ensure there is not an alternative cause e.g. infection, psychosis, dementia (particularly Lewy body dementia), intoxication, metabolic abnormalities, focal neurological illness.

Discuss (4) | Improve

Next question

Charles-Bonnet syndrome

Charles-Bonnet syndrome (CBS) is characterised by persistent or recurrent complex hallucinations (usually visual or auditory), occurring in clear consciousness. This is generally against a

background of visual impairment (although visual impairment is not mandatory for a diagnosis). Insight is usually preserved. This must occur in the absence of any other significant neuropsychiatric disturbance.

Risk factors include:

- Advanced age
- Peripheral visual impairment
- Social isolation
- Sensory deprivation
- Early cognitive impairment

CBS is equally distributed between sexes and does not show any familial predisposition. The most common ophthalmological conditions associated with this syndrome are age-related macular degeneration, followed by glaucoma and cataract.

Well-formed complex visual hallucinations are thought to occur in 10-30 per cent of individuals with severe visual impairment. Prevalence of CBS in visually impaired people is thought to be between 11 and 15 per cent.

Around a third find the hallucinations themselves an unpleasant or disturbing experience. In a large study published in the British Journal of Ophthalmology, 88% had CBS for 2 years or more, resolving in only 25% at 9 years (thus it is not generally a transient experience).

Cox (2014) Negative outcome Charles Bonnet Syndrome. Br J Ophthalmol.

Next question

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Question 108 of 117

A 54-year-old woman is seen in the neurology clinic.

She is well-known to the team with long-standing left arm weakness affecting all muscle groups, but no other neurological defects.

The patient has been extensively investigated with blood tests, CSF examination, and multiple cross-sectional scans of the brain and spinal cord, but no pathology was ever found. Despite the diagnostic ambiguity, the patient had never expressed significant distress over her symptoms.

On review of her history, she reveals her symptoms began shortly after her husband committed suicide.

What is the most likely diagnosis?

Conversion disorder	68%
Delusional disorder	1%
Hypochondriasis	3%
Psychotic depression	4%
Somatisation disorder	25%

Functional neurological disorder (conversion disorder) - typically involves loss of motor or sensory function

Important for me Less important

Conversion disorder is correct. This patient is presenting with medically unexplained neurological symptoms that do not fit any clinical syndrome, and have arisen most likely in response to a traumatic experience. This is most in keeping with conversion disorder (also known as functional neurologic symptom disorder).

Hypochondriasis is incorrect. Hypochondriasis describes an over-valued idea held by a patient that they have a certain medical condition despite repeated negative tests and reassurance. This is not the case in this question; the patient is presenting with medically unexplained neurological

symptoms that do not fit any clinical syndrome, and have arisen most likely in response to a traumatic experience. This is most in keeping with conversion disorder (also known as functional neurologic symptom disorder).

Delusional disorder is incorrect. Delusions are fixed false beliefs out of keeping with patients' cultural/spiritual beliefs that are held despite evidence to the contrary. Although there is no demonstrable disease process in conversion disorder, it is not believed to be delusional in origin.

Psychotic depression is incorrect. None of the core features of depression are mentioned in the question stem. This answer is therefore incorrect. The patient's arm weakness is not a delusional belief: although there is no demonstrable disease process in conversion disorder, it is not believed to be delusional in origin.

Somatisation disorder is incorrect. Somatisation disorder is the repeated presentation with medically unexplained symptoms, and the associated distress and anxiety associated with these. This patient is presenting with one consistent neurological symptom that is not causing an undue amount of distress; this is more in keeping with conversion disorder (also known as functional neurologic symptom disorder).

Discuss | Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder
- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)
- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Functional neurological disorder (conversion disorder)
- typically involves loss of motor or sensory function

- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)
- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Dissociative disorder

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor
- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Next question

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Links

Royal College of Physicians 5 2

2013 Functional neurological symptoms

Report broken link

Media



Dissociative disorders

Osmosis - YouTube 19 1

Factitious disorder

Osmosis - YouTube 9 1



Somatic symptom disorder

Osmosis - YouTube 8 1

Report broken media

Score: **22.2%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗
10 ✗

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Question 109 of 117

A 29-year-old fireman presents following a recent traumatic incident where a child died in a house fire. He describes recurrent nightmares and flashbacks which have been present for the past 3 months. A diagnosis of post-traumatic stress disorder is suspected. What is the most appropriate first-line treatment?

Arrange a CT head to exclude an organic cause	1%
Cognitive behavioural therapy or eye movement desensitisation and reprocessing therapy	80%
Cognitive behavioural therapy or graded exposure therapy	9%
Cognitive behavioural therapy or psychodynamic therapy	6%
Watchful waiting	5%

PTSD management - trauma-focused cognitive behavioural therapy or EMDR

Important for me Less important

The most appropriate first-line treatment for this patient with suspected post-traumatic stress disorder (PTSD) is **cognitive behavioural therapy or eye movement desensitisation and reprocessing therapy**. According to the UK guidelines, both cognitive behavioural therapy (CBT) and eye movement desensitisation and reprocessing (EMDR) are recommended as first-line treatments for PTSD. These therapies have been shown to be effective in reducing symptoms of PTSD, such as intrusive thoughts, flashbacks, and nightmares.

Arranging a **CT head to exclude an organic cause** would not be the most appropriate first step in this case. While it is important to consider potential organic causes for psychiatric symptoms, the patient's history of a recent traumatic event with subsequent nightmares and flashbacks strongly suggests PTSD. A CT scan may be considered if there were other concerning neurological signs or symptoms, but it is not indicated solely based on this presentation.

Cognitive behavioural therapy or graded exposure therapy is another option; however, graded exposure therapy has not been shown to be as effective as EMDR in treating PTSD. Graded exposure can be beneficial for anxiety disorders like phobias but may not address the specific symptoms of PTSD effectively.

Similarly, **cognitive behavioural therapy or psychodynamic therapy** is not the best choice because psychodynamic therapy has limited evidence supporting its effectiveness in treating PTSD. Psychodynamic approaches focus on uncovering unconscious conflicts and past experiences that contribute to current difficulties but may not specifically target trauma-related symptoms like CBT or EMDR do.

Lastly, **watchful waiting** would not be appropriate given that the patient has been experiencing symptoms for 3 months. Watchful waiting might be considered if the patient had only recently experienced the traumatic event and was showing mild symptoms. However, given the duration and severity of his symptoms, active intervention with evidence-based treatments like CBT or EMDR is warranted.

Discuss (2) Improve

Next question

Post-traumatic stress disorder ★

Post-traumatic stress disorder (PTSD) can develop in people of any age following a traumatic event, for example, a major disaster or childhood sexual abuse. It encompasses what became known as 'shell shock' following the first world war. One of the DSM-IV diagnostic criteria is that symptoms have been present for more than one month.

Features

- re-experiencing: flashbacks, nightmares, repetitive and distressing intrusive images
- avoidance: avoiding people, situations or circumstances resembling or associated with the event
- hyperarousal: hypervigilance for threat, exaggerated startle response, sleep problems, irritability and difficulty concentrating
- emotional numbing - lack of ability to experience feelings, feeling detached

from other people

- depression
- drug or alcohol misuse
- anger
- unexplained physical symptoms

Management

- following a traumatic event single-session interventions (often referred to as debriefing) are not recommended
- watchful waiting may be used for mild symptoms lasting less than 4 weeks
- military personnel have access to treatment provided by the armed forces
- trauma-focused cognitive behavioural therapy (CBT) or eye movement desensitisation and reprocessing (EMDR) therapy may be used in more severe cases
- drug treatments for PTSD should not be used as a routine first-line treatment for adults. If drug treatment is used then venlafaxine or a selective serotonin reuptake inhibitor (SSRI), such as sertraline should be tried. In severe cases, NICE recommends that risperidone may be used

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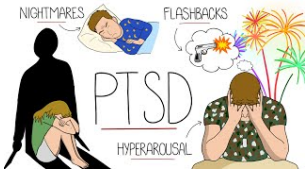
NICE

1 2

2018 PTSD guidelines

Report broken link

Media



Post-traumatic stress disorder

Rhesus Medicine - YouTube

3 0



Post-traumatic Stress Disorder (PTSD)

Osmosis - YouTube 8 5

Report broken media

Score: **22%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗
10 ✗
11 ✗
12 ✗
13 ✗
14 ✗
15 ✗
16 ✗
17 ✓
18 ✗
19 ✗
20 ✗
21 ✗

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Question 110 of 117

You have been asked to review a patient with chest pain awaiting assessment by the psychiatry team.

Examination and investigations are normal, however, you note that he is acting strangely. He is reluctant to answer questions and does not maintain eye contact. After developing trust with him, he discloses he has never been in a relationship and that he prefers to be on his own as he won't embarrass himself. He has no friends and doesn't speak to his family because they criticise everything he does.

Which form of personality disorder is he likely suffering from?

Antisocial	13%
Avoidant	69%
Borderline	3%
Histrionic	1%
Schizoid	14%

Patients with avoidant personality disorder are fearful of criticism, being unliked, rejection and ridicule

Important for me Less important

An **avoidant** personality disorder is correct. It is associated with social isolation and avoidance of activities due to a fear of embarrassment, criticism, and fear of others.

An **antisocial** personality disorder is associated with impulsivity, aggressiveness, and irritability. People often fight and have a lack of remorse. They are irresponsible and find it difficult to maintain a job.

Borderline personality disorder reflects a mixture of feelings involving impulsivity in self-damaging acts, instability in relationships, depression, and worries about abandonment.

Histrionic personality disorder describes a person with inappropriate sexuality. People generally

show suggestibility, self-dramatisation, and inappropriate sexual seduction.

Schizoid personality disorder refers to a preference of being alone with few interests, few friends, and a lack of desire for companionship.

Discuss (1) Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	Cluster B: 'Dramatic, Emotional, or Erratic'	Cluster C: 'Anxious and Fearful'
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others
- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship

- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values
- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning
- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked

- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

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Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



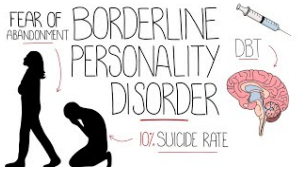
Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



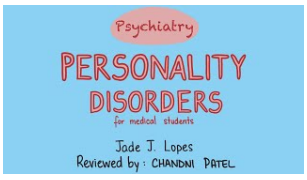
Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2



Cluster B personality disorders (antisocial, borderline, histrionic, narcissistic)

Osmosis - YouTube 11 5



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Question 111 of 117

A 21-year-old female is admitted to the acute medical unit after a paracetamol overdose. She later admits to multiple episodes of impulsive self-harm and overdoses. She reports that her recent overdose was triggered by a fight with her dad and concerns that he will no longer want to see her. She describes long-standing feelings of emptiness and does not like the way she looks.

What is the most likely underlying personality disorder?

Narcissistic personality disorder	3%
Paranoid personality disorder	8%
Borderline personality disorder	70%
Dependant personality disorder	12%
Avoidant personality disorder	7%

Borderline personality disorder is associated with impulsivity, feelings of emptiness, fear of abandonment and unstable self image

Important for me Less important

The correct answer is borderline personality disorder. Patients with personality disorder have disturbances in behaviour and personality that result in considerable personal and social distress across all areas of life. Borderline or emotionally unstable personality disorder is characterised by emotional instability, impulsive behaviour and intense but unstable relationships with others. Patients often fear abandonment of those close to them and may idolise these people. As in the patient described, they often have feelings of emptiness, poor self-image and recurrent attempts at self-harm. There is an association between the development of borderline personality disorder and history of trauma or abuse in childhood.

Narcissistic personality disorder is incorrect. These patients have an over exaggerated sense of self-importance, lack empathy and tend to have a sense of entitlement.

Option 2 is incorrect. Paranoid personality disorder presents in patients who are reluctant to confide in others. They often question the loyalty of friends and family and can be unforgiving. They can see hidden meaning in things or are concerned about conspiracy theories.

Patients with dependent personality disorder struggle to make everyday life decisions and require reassurance and support from others. They cope best when in a relationship and fear being alone. Whilst there are features in the stem of the patient idolising her father there is no evidence of dependent personality disorder.

Option 5 is also incorrect. Avoidant personality disorder is characterised by avoidance of social contact/relationships due to fear of being criticised, rejected or embarrassed. Patients view themselves as inferior to others and so are not keen to be involved unless they are certain of being liked.

Further information on personality disorder can be found in the ICD 10 guide - http://apps.who.int/classifications/icd10/browse/2016/en#/F66

Discuss (5) Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	Cluster B: 'Dramatic, Emotional, or Erratic'	Cluster C: 'Anxious and Fearful'
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others

- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
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- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
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- Rapidly shifting and shallow expression of emotions
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- Relationships considered to be more intimate than they are

Narcissistic

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- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
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- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
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- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values
- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning

- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

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Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



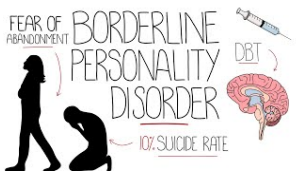
Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2

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Question 112 of 117

A 64-year-old male who has been on long term chlorpromazine presents with repetitive eye blinking. He reports he is unable to control this and is worried about what might be causing it. He is otherwise well in himself and has no visual disturbance. He has a normal facial and ocular examination with the exception of excessive rapid blinking.

What is the most likely cause of his symptoms?

Parkinsonism	3%
Dry eyes	7%
Sjogren's syndrome	1%
Tardive dyskinesia	71%
Benign essential blepharospasm	18%

Tardive kinesia can present as chewing, jaw pouting or excessive blinking due to late onset abnormal involuntary choreoathetoid movements in patients on conventional antipsychotics

Important for me Less important

The correct answer is tardive dyskinesia. The patient has been on a long term antipsychotic - chlorpromazine and has developed late-onset extrapyramidal side effects. Patients most typically develop lip-smacking, jaw pouting or chewing however repetitive blinking or tongue poking can also occur. This is often involuntary and difficult to treat. Where possible replacing the antipsychotic may help some patients or alternatively, a trial of tetrabenazine may provide some relief.

Parkinsonism can occur in patients taking conventional antipsychotics. Patients experience symptoms similar to those with Parkinson's disease for example tremor, blank facies, bradykinesia and muscle rigidity. There is no mention of any other symptoms in this stem and you would not expect repetitive blinking in parkinsonism. As such this option is incorrect.

Dry eyes may lead to eye twitching but repetitive blinking would be unlikely. Furthermore, you would expect other symptoms to be present such as watering of the eyes or visual disturbance.

Sjogren's syndrome can cause dry eyes but as per the above answer, this in itself should not cause the repetitive involuntary blinking.

Blepharospasm is involuntary twitching or contraction of the eyelid. It is a focal dystonia which most commonly lasts only a few days but can be life long. Patients may be light sensitive and experience periods where the eye clamps shut. The cause is typically unknown but commonly occurs due to stress or fatigue. Given that the patient in the stem is on chlorpromazine, a typical antipsychotic, it is more likely he is suffering tardive dyskinesia due to extrapyramidal side effects.

Discuss Improve

Next question

Antipsychotics

Antipsychotics are a group of drugs used in the management of schizophrenia and other forms of psychosis, mania and agitation. They are usually divided into typical and atypical antipsychotics. The atypical antipsychotics were developed due to the problematic extrapyramidal side-effects which are associated with the first generation of typical antipsychotics.

	Typical antipsychotics	**Atypical antipsychotics**
Mechanism of action	Dopamine D2 receptor antagonists, blocking dopaminergic transmission in the mesolimbic pathways	Act on a variety of receptors (D2, D3, D4, 5-HT)
Adverse effects	Extrapyramidal side-effects and hyperprolactinaemia common	Extrapyramidal side-effects and hyperprolactinaemia less common Metabolic effects
Examples	Haloperidol Chlorpromazine	Clozapine Risperidone Olanzapine

The rest of this section will focus on typical antipsychotics, with atypical antipsychotics covered elsewhere.

Extrapyramidal side-effects (EPSEs)

- Parkinsonism

- acute dystonia
  - sustained muscle contraction (e.g. torticollis, oculogyric crisis)
  - may be managed with procyclidine
- akathisia (severe restlessness)
- tardive dyskinesia (late onset of choreoathetoid movements, abnormal, involuntary, may occur in 40% of patients, may be irreversible, most common is chewing and pouting of jaw)

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Other side-effects

- antimuscarinic: dry mouth, blurred vision, urinary retention, constipation
- sedation, weight gain
- raised prolactin
  - may result in galactorrhoea
  - due to inhibition of the dopaminergic tuberoinfundibular pathway
- impaired glucose tolerance
- neuroleptic malignant syndrome: pyrexia, muscle stiffness
- reduced seizure threshold (greater with atypicals)
- prolonged QT interval (particularly haloperidol)

Next question

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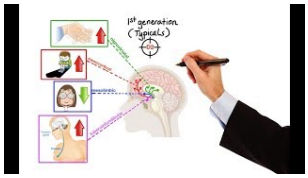
Psychoses and related disorders

Clinical Knowledge Summaries 2 1

Schizophrenia > Prescribing Information > Adverse effects

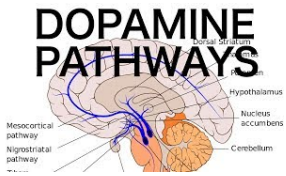
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Media



Antipsychotics

Speed Pharmacology - YouTube 38 0



Antipsychotics, Dopamine, and EPS

Dirty USMLE - YouTube 24 0



Video of patients with tardive dyskinesia

Abnormal Involuntary Movement Scale training video - YouTube 17 3

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Score: **21.4%**

1 ✕

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Question 113 of 117

A 28-year-old man telephones the GP, informing him that he has just stopped taking his medications suddenly as he wishes to come off them. He has a past medical history of depression and asthma, for which he takes sertraline and a salbutamol inhaler.

Which of the following effects is most likely to occur as a result of his decision?

Blunted affect	18%
Hypertension	4%
Diarrhoea	71%
Weight gain	4%
Xanthopsia	2%

Gastrointestinal side-effects such as diarrhoea are seen in SSRI discontinuation syndrome

Important for me Less important

The correct answer is vomiting. Stopping a selective serotonin reuptake inhibitor (SSRI) suddenly can lead to SSRI discontinuation syndrome. The most common symptom is gastrointestinal upset. Therefore, SSRIs should be gradually tapered instead.

A blunted affect is unlikely. This is usually a side effect of taking antidepressants themselves rather than an effect of their cessation. The opposite may, in fact, occur upon stopping the medication - labile mood and swings.

Hypertension is unlikely - there have been a few isolated case reports of this with SSRI discontinuation, but gastrointestinal symptoms are far more likely.

Weight gain, again, is unlikely - more commonly, weight loss is reported upon cessation.

Xanthopsia (yellow-tinted vision) is not known to occur with SSRIs. It may occur as a result of digoxin use.

Discuss (1) Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin

- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

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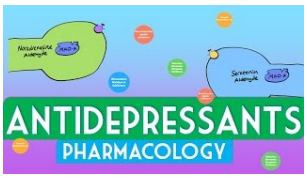
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Antidepressants

Speed Pharmacology - YouTube 30 2



Antidepressants Pharmacology

Soton Brain Hub - YouTube 9 3

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Score: **21.2%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓

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Question 114 of 117

A 43-year-old man is reviewed on the mental health ward following a deterioration of his psychiatric condition. The patient was originally admitted with a major depressive disorder associated with psychiatric hallucinations.

Recently the patient has been consistently reporting that he believes he is dead. As a result, the patient has stopped eating and has clear evidence of self-neglect. The patient is not known to have any other medical conditions other than his mental health issues.

What syndrome is this patient suffering from?

Capgras syndrome	7%
Charles Bonnet syndrome	3%
Cotard syndrome	86%
De Clerambault syndrome	2%
Impostor syndrome	1%

Cotard syndrome is characterised by a person believing they are dead or non-existent

Important for me Less important

This patient has presented with the rare psychiatric disorder **Cotard syndrome** where an affected patient holds the delusion that they (or part of their body) are dead or non-existent. The condition is associated with severe depression/psychotic disorders and can have significant detrimental effects on patients suffering self-neglect and withdrawal from others. Management ranges from pharmacological treatments as well as electroconvulsive therapy.

Capgras syndrome is an irrational delusion of misidentification where patients believe that a relative or friend has been replaced by an identical impostor. The diagnosis is normally associated with schizophrenia although cases have been reported in patients suffering significant brain trauma or dementia.

Charles Bonnet syndrome is a psychophysical visual disorder where patients with significant vision loss have vivid, often recurrent visual hallucinations. These hallucinations can be simple (i.e.

shapes, patterns) or complex (i.e. detailed objects, people) but patients almost always have insight into the fact that they are not real and do not suffer from any other forms of hallucinations (e.g. auditory) or delusions.

De Clerambault syndrome, also known as erotomania, is a rare delusion disorder where patients believe another individual is infatuated with them, often despite the individual being imaginary, deceased or someone the patient has never met. A common symptom of the syndrome is patients perceiving that they are being sent messages from the false secret admirer via innocuous events (e.g. messages via number plate or the television).

Impostor syndrome is a pattern of negative psychological behaviour where an individual doubts their own ability or achievements and hold a chronic fear that they will be exposed. These beliefs are held often despite clear external evidence they are false and patients often report feeling they are 'frauds'.

Discuss Improve

Next question

Cotard syndrome

Cotard syndrome is a rare mental disorder where the affected patient believes that they (or in some cases just a part of their body) is either dead or non-existent. This delusion is often difficult to treat and can result in significant problems due to patients stopping eating or drinking as they deem it not necessary.

Cotard syndrome is associated with severe depression and psychotic disorders.

Next question

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Question 115 of 117

A 34-year-old man originally from West Africa is seen in January with depression. There is no past medical history of note but he is known to smoke cannabis. He has had similar episodes for the past two winters. What is the most likely diagnosis?

Cyclothymic disorder	8%
Atypical depression	1%
Seasonal affective disorder	84%
Schizophrenia	1%
Drug-induced depression	6%

The most likely diagnosis for this patient is **Seasonal affective disorder**. This condition is characterised by recurrent episodes of depression that usually occur during the same season each year, in this case, winter. The fact that the patient has had similar episodes for the past two winters strengthens this diagnosis. Seasonal affective disorder is thought to be related to light exposure and can be effectively managed with light therapy or antidepressants.

Cyclothymic disorder would be an unlikely diagnosis as it involves periods of hypomanic symptoms as well as depressive symptoms. Hypomanic symptoms are not mentioned in the stem of the question. Moreover, cyclothymic disorder typically presents a chronic course with no symptom-free intervals longer than two months, which does not fit with this patient's history.

Atypical depression is characterised by mood reactivity (i.e., mood improves in response to positive events) and at least two of the following: significant weight gain or increase in appetite, hypersomnia, heavy feeling in arms or legs (leaden paralysis), and long-standing pattern of interpersonal rejection sensitivity. These features are not described here.

While cannabis use can lead to **Schizophrenia**, particularly in individuals who start using it at a young age or those who use it heavily, there are no psychotic symptoms mentioned such as hallucinations or delusions which would point towards a diagnosis of schizophrenia.

Finally, **Drug-induced depression** could potentially explain his depressive episodes if they were temporally related to his cannabis use. However, drug-induced depression would likely persist beyond just the winter months if he continues using cannabis throughout the year. Furthermore,

drug-induced disorders typically resolve upon cessation of use which doesn't seem to be the case here given his recurrent winter depressions despite presumably ongoing cannabis use.

Discuss (3) | Improve

Next question

Seasonal affective disorder

Seasonal affective disorder (SAD) describes depression which occurs predominately around the winter months. SAD should be treated the same way as depression, therefore as per the NICE guidelines for mild depression, you would begin with psychological therapies and follow up with the patient in 2 weeks to ensure that there has been no deterioration. Following this an SSRI can be given if needed. In seasonal affective disorder, you should not give the patient sleeping tablets as this can make the symptoms worse. Finally, the evidence for light therapy is limited and as such it is not routinely recommended.

Next question

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Question 116 of 117

A 65-year-old female with a history of ischaemic heart disease is noted to be depressed following a recent myocardial infarction. What would be the most appropriate antidepressant to start?

Paroxetine	9%
Imipramine	3%
Flupentixol	2%
Venlafaxine	10%
Sertraline	75%

Sertraline is the SSRI of choice post myocardial infarction

Important for me Less important

Sertraline is the preferred antidepressant following a myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants

Discuss Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness

- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

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Antidepressants

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Question 117 of 117

Enid, an 87-year-old lady, is experiencing disturbing visual hallucinations. She sees 'evil' looking faces on the walls and snakes and insects on the floor. She knows that these are not real. She has no auditory hallucinations. She is otherwise well. She has a history of hypertension, depression, hearing loss and macular degeneration. What is the most likely cause of her hallucinations?

Lewy body dementia	9%
Psychotic depression	5%
Acute psychosis	2%
Charles Bonnet syndrome	82%
Normal pressure hydrocephalus	1%

Charles-Bonnet syndrome causes unpleasant visual hallucinations in a third of sufferers

Important for me Less important

The cause of this lady's visual hallucinations is Charles Bonnet syndrome. Around a third of sufferers may experience disturbing or unpleasant hallucinations.

Lewy body dementia may involve visual hallucinations alongside fluctuating cognitive impairment, but in the absence of any current neuropsychiatric symptoms this makes this a less likely diagnosis.

Acute psychosis tends to involve auditory hallucinations associated with delusions.

Psychotic depression would usually involve severe symptoms of depression with the development of psychotic symptoms.

Normal pressure hydrocephalus does not usually involve visual hallucinations.

Discuss (3) Improve

Charles-Bonnet syndrome

Charles-Bonnet syndrome (CBS) is characterised by persistent or recurrent complex hallucinations (usually visual or auditory), occurring in clear consciousness. This is generally against a background of visual impairment (although visual impairment is not mandatory for a diagnosis). Insight is usually preserved. This must occur in the absence of any other significant neuropsychiatric disturbance.

Risk factors include:

- Advanced age
- Peripheral visual impairment
- Social isolation
- Sensory deprivation
- Early cognitive impairment

CBS is equally distributed between sexes and does not show any familial predisposition. The most common ophthalmological conditions associated with this syndrome are age-related macular degeneration, followed by glaucoma and cataract.

Well-formed complex visual hallucinations are thought to occur in 10-30 per cent of individuals with severe visual impairment. Prevalence of CBS in visually impaired people is thought to be between 11 and 15 per cent.

Around a third find the hallucinations themselves an unpleasant or disturbing experience. In a large study published in the British Journal of Ophthalmology, 88% had CBS for 2 years or more, resolving in only 25% at 9 years (thus it is not generally a transient experience).

Cox (2014) Negative outcome Charles Bonnet Syndrome. Br J Ophthalmol.

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Question 1 of 117

A 31-year-old woman who gave birth two weeks ago presents for review with her husband. He is worried by her mood as she now seems depressed and is interacting poorly with the baby. He describes her mood three days ago being much different, when she was talking in a rapid and incoherent fashion about the future. The mother denies any hallucinations but states that her child has been brought into a 'very bad world'. What is the most appropriate management?

Start fluoxetine	10%
Reassurance + review by health visitor	25%
Cognitive behavioural therapy	20%
Start lithium	3%
Arrange urgent admission	43%

The mother may be suffering from puerperal psychosis and needs urgent admission to allow psychiatric evaluation.

Whilst there is not a full complement of psychotic features there are a number of pointers towards significant mental health problems:

- poor interaction with the baby: this is very unusual, including in women with postnatal depression
- 'talking in an incoherent fashion about the future'
- stating that the baby 'has been brought into a very bad world' is odd and somewhat worrying

For these reasons, the mother should have an urgent psychiatric evaluation.

Discuss (2) | Improve

Next question

Postpartum mental health problems

Postpartum mental health problems range from the 'baby-blues' to puerperal psychosis.

The **Edinburgh Postnatal Depression Scale** may be used to screen for depression:

- 10-item questionnaire, with a maximum score of 30
- indicates how the mother has felt over the previous week
- score > 13 indicates a 'depressive illness of varying severity'
- sensitivity and specificity > 90%
- includes a question about self-harm

'Baby-blues'	Postnatal depression	Puerperal psychosis
Seen in around 60-70% of women Typically seen 3-7 days following birth and is more common in primips Mothers are characteristically anxious, tearful and irritable	Affects around 10% of women Most cases start within a month and typically peaks at 3 months Features are similar to depression seen in other circumstances	Affects approximately 0.2% of women Onset usually within the first 2-3 weeks following birth Features include severe swings in mood (similar to bipolar disorder) and disordered perception (e.g. auditory hallucinations)
Reassurance and support, the health visitor has a key role	As with the baby blues reassurance and support are important NICE CKS state '*Most women with the baby blues will not require specific treatment other than reassurance*' Cognitive behavioural therapy may be beneficial. Certain SSRIs such as sertraline and paroxetine* may be used if symptoms are severe** - whilst they are secreted in breast milk it is not thought to be harmful to the infant	Admission to hospital is usually required, ideally in a Mother & Baby Unit There is around a 25-50% risk of recurrence following future pregnancies

*paroxetine is recommended by SIGN because of the low milk/plasma ratio
**fluoxetine is best avoided due to a long half-life

Next question

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Links

South African Depression and Anxiety Group 1 0

Edinburgh Postnatal Depression Scale

SIGN 3 1

2012 Management of perinatal mood disorders

NICE 1 1

2014 Antenatal and postnatal mental health

Clinical Knowledge Summaries 0 1

Depression - antenatal and postnatal

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Score: **0%**

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Question 2 of 117

A 24-year-old man is sectioned under the mental health act after being bought in displaying clearly abnormal behaviour and describing auditory hallucinations.

He is diagnosed with schizophrenia and is started on an atypical antipsychotic. Prior to commencing the agent, all investigations were normal. After a few months of treatment, the patient's symptoms have improved however it is noted he has gained a considerable amount of weight. A repeat lipid profile shows:

Total cholesterol	6.8 mmol/L	<5.2
HDL	0.9 mmol/L	1-1.6
LDL	5 mmol/L	<4.2
Triglycerides	3 mmol/L	<1.7

What agent was the patient most likely started on?

Aripiprazole	4%
Clozapine	10%
Haloperidol	4%
Olanzapine	78%
Quetiapine	5%

Olanzapine has a higher risk than other atypicals for dyslipidemia and obesity

Important for me Less important

NICE guidelines current suggest index cases of schizophrenia should now be commenced on an atypical antipsychotic as first-line. On starting antipsychotic treatment this patient has developed dyslipidaemia, as displayed by the lipid blood tests, and significant weight gain. Several atypical antipsychotics can be associated with these adverse effects however **olanzapine** has a relatively higher risk comparatively. Olanzapine is believed to cause higher deregulation of hepatic lipid metabolism resulting in this increased hyperlipidaemia and weight gain.

Aripiprazole has a general good side-effect profile when compared to other atypical agents and is not commonly associated with dyslipidaemia and weight gain. Aripiprazole has, however, been associated with the movement disorder akathisia and therefore this should be monitored.

Clozapine was one of the first atypical antipsychotics to be introduced and although it has a significant side effect profile it is not as associated with dyslipidaemia and weight gain as olanzapine. One of the most significant adverse effects of clozapine is the risk of agranulocytosis. As such clozapine is mainly reserved for patients who are unresponsive to other antipsychotic agents.

Haloperidol is a typical, not an atypical, antipsychotic agent and therefore will not have been commenced in this case. Typical antipsychotics are more associated with extrapyramidal symptoms such as tardive dyskinesia, parkinsonism, and dystonia and so guidelines now advise commencing patients on atypical antipsychotics first-line.

Quetiapine again has a lower association with dyslipidaemia and weight gain when compared to olanzapine. Quetiapine is believed to have a higher affinity to Î±1-adrenergic and histamine-1 receptors and therefore patients may be at high risk of orthostatic hypotension and transient sedation.

Discuss (1) Improve

Next question

Atypical antipsychotics

Atypical antipsychotics should now be used first-line in patients with schizophrenia, according to 2005 NICE guidelines. The main advantage of the atypical agents is a significant reduction in extrapyramidal side-effects.

Adverse effects of atypical antipsychotics

- weight gain
- clozapine is associated with agranulocytosis (see below)
- hyperprolactinaemia

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Examples of atypical antipsychotics

- clozapine
- olanzapine: higher risk of dyslipidemia and obesity
- risperidone
- quetiapine
- amisulpride
- aripiprazole: generally good side-effect profile, particularly for prolactin elevation

Next question

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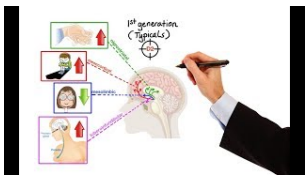
2014 Schizophrenia guidelines

BNF 1 1

Clozapine

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Antipsychotics

Speed Pharmacology - YouTube 31 1

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Score: **0%**

1 ✗

2 ✗

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Question 3 of 117

A 23-year-old man asks to be referred to a plastic surgeon. From his records you can see he has been treated for anxiety and depression with fluoxetine previously and has been off work with back pain for the past three months. He is concerned that his ears are too big in proportion to his face. He reports that he now seldom leaves the house because of this. On examination his ears appear to be within normal limits. What is the most appropriate description of this behaviour?

Hypochondriasis	4%
Generalised anxiety disorder	2%
Somatisation	5%
Malingering	3%
Dysmorphophobia	86%

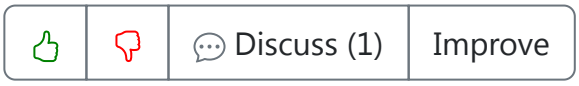
The correct answer in this scenario is **Dysmorphophobia**. Dysmorphophobia, also known as body dysmorphic disorder (BDD), is a mental health condition where an individual obsesses over perceived flaws or defects in their appearance that are either minor or not observable by others. In this case, the patient believes his ears are too big in proportion to his face, despite them appearing within normal limits upon examination. This preoccupation with his appearance has led him to avoid social situations and become housebound.

Hypochondriasis, now referred to as illness anxiety disorder, is a condition where a person becomes excessively worried about having a serious illness based on normal bodily sensations or minor symptoms. The focus here is on the fear of having an illness rather than concerns about physical appearance.

Generalised anxiety disorder (GAD) is characterized by excessive and persistent worry about various aspects of life, such as work, health, family, and finances. Although it may be possible for someone with GAD to worry about their appearance as well, the primary concern in this case appears to be specifically related to the size of the patient's ears rather than generalized anxiety.

Somatisation refers to the process by which psychological distress manifests itself through physical symptoms. In this scenario, there are no physical symptoms reported by the patient - his distress relates solely to his perception of his ears' size.

Malingering involves intentionally feigning or exaggerating physical or psychological symptoms for personal gain, such as financial compensation or avoiding work responsibilities. In this case, there is no evidence suggesting that the patient's concerns about his ears are fabricated for personal gain.



Next question

Body dysmorphic disorder

Body dysmorphic disorder (sometimes referred to as dysmorphophobia) is a mental disorder where patients have a significantly distorted body image

Diagnostic and Statistical Manual (DSM) IV criteria:

- Preoccupation with an imagine defect in appearance. If a slight physical anomaly is present, the person's concern is markedly excessive
- The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning
- The preoccupation is not better accounted for by another mental disorder (e.g., dissatisfaction with body shape and size in Anorexia Nervosa)

Next question

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Question 4 of 117

Which one of the following interventions is most likely to be beneficial in a patient with schizophrenia?

Counselling	1%
Supportive psychotherapy	31%
Social skills training	6%
Adherence therapy	16%
Cognitive behavioural therapy	45%

The correct answer is **Cognitive behavioural therapy** (CBT). According to the National Institute for Health and Care Excellence (NICE) guidelines, CBT is recommended for all people with schizophrenia. This form of therapy helps patients deal with their symptoms by changing the way they think and behave. It can reduce the severity of symptoms and improve quality of life.

The first incorrect option, **Counselling**, while beneficial in many mental health conditions, has not been proven as the most effective intervention in schizophrenia. Counselling typically involves talking about feelings and emotions related to personal experiences, but it does not specifically target the cognitive distortions or delusional beliefs common in schizophrenia.

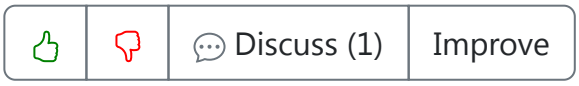
Supportive psychotherapy is another incorrect option. This type of therapy aims to foster a therapeutic relationship between patient and therapist to enhance self-esteem, reduce anxiety, and improve adaptive skills. However, it doesn't directly address the cognitive distortions that are characteristic of schizophrenia.

Social skills training, although useful in improving social functioning in individuals with schizophrenia, is not considered as effective as CBT in managing the overall symptoms of the disease. Social skills training focuses on teaching patients how to interact more effectively with others, which can be beneficial but does not directly target psychotic symptoms such as hallucinations or delusions.

Lastly, **Adherence therapy** is also an incorrect choice. Adherence therapy aims at improving medication compliance through education about illness and treatment benefits. While this may be helpful for some patients who struggle with medication adherence, it doesn't address cognitive

distortions or other core symptoms of schizophrenia like CBT does.

In conclusion, while all these interventions may play a role in managing different aspects of schizophrenia according to individual needs and circumstances, Cognitive Behavioural Therapy stands out as being most likely beneficial due to its comprehensive approach towards symptom management according to NICE guidelines.



Next question

Schizophrenia: management

NICE published guidelines on the management of schizophrenia in 2009.

Key points:

- oral atypical antipsychotics are first-line
- cognitive behavioural therapy should be offered to all patients
- close attention should be paid to cardiovascular risk-factor modification due to the high rates of cardiovascular disease in schizophrenic patients (linked to antipsychotic medication and high smoking rates)

Next question



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Question 5 of 117

A 35-year-old man with a history of schizophrenia is transferred to the Emergency Department due to an oculogyric crisis. What is the most appropriate treatment?

Selegiline	4%
Haloperidol	14%
Procyclidine	68%
Bromocriptine	10%
Cabergoline	4%

The correct answer is **Procyclidine**. An oculogyric crisis is a dystonic reaction, typically associated with the use of antipsychotic medications. It presents as sustained, often painful, upward deviation of the eyes. Procyclidine, an anticholinergic drug, is used in the management of extrapyramidal symptoms caused by antipsychotics. It works by blocking the action of acetylcholine in the central nervous system, which helps to reduce muscle stiffness and spasms.

The first incorrect option is **Selegiline**. Selegiline is a monoamine oxidase-B (MAO-B) inhibitor and it's primarily used for treating Parkinson's disease by increasing dopamine levels in the brain. While it can help manage motor symptoms related to dopamine deficiency, it would not be effective in treating an oculogyric crisis.

Haloperidol, another incorrect option, is an antipsychotic medication that can actually cause an oculogyric crisis as a side effect due to its dopamine-blocking activity. Using haloperidol to treat this condition would likely worsen the patient's symptoms.

Bromocriptine and **Cabergoline** are both dopamine agonists used in the treatment of hyperprolactinemia and Parkinson's disease. They work by stimulating dopamine receptors. However, they are not typically used to treat extrapyramidal symptoms like an oculogyric crisis. In fact, excessive stimulation of dopaminergic pathways could potentially exacerbate certain extrapyramidal reactions.

Discuss (1) | Improve

Next question

Antipsychotics

Antipsychotics are a group of drugs used in the management of schizophrenia and other forms of psychosis, mania and agitation. They are usually divided into typical and atypical antipsychotics. The atypical antipsychotics were developed due to the problematic extrapyramidal side-effects which are associated with the first generation of typical antipsychotics.

	Typical antipsychotics	**Atypical antipsychotics**
Mechanism of action	Dopamine D2 receptor antagonists, blocking dopaminergic transmission in the mesolimbic pathways	Act on a variety of receptors (D2, D3, D4, 5-HT)
Adverse effects	Extrapyramidal side-effects and hyperprolactinaemia common	Extrapyramidal side-effects and hyperprolactinaemia less common Metabolic effects
Examples	Haloperidol Chlorpromazine	Clozapine Risperidone Olanzapine

The rest of this section will focus on typical antipsychotics, with atypical antipsychotics covered elsewhere.

Extrapyramidal side-effects (EPSEs)

- Parkinsonism
- acute dystonia
  - sustained muscle contraction (e.g. torticollis, oculogyric crisis)
  - may be managed with procyclidine
- akathisia (severe restlessness)
- tardive dyskinesia (late onset of choreoathetoid movements, abnormal, involuntary, may occur in 40% of patients, may be irreversible, most common is chewing and pouting of jaw)

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke

- increased risk of venous thromboembolism

Other side-effects

- antimuscarinic: dry mouth, blurred vision, urinary retention, constipation
- sedation, weight gain
- raised prolactin
  - may result in galactorrhoea
  - due to inhibition of the dopaminergic tuberoinfundibular pathway
- impaired glucose tolerance
- neuroleptic malignant syndrome: pyrexia, muscle stiffness
- reduced seizure threshold (greater with atypicals)
- prolonged QT interval (particularly haloperidol)

Next question

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Links

BNF 1 0

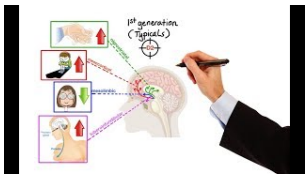
Psychoses and related disorders

Clinical Knowledge Summaries 2 1

Schizophrenia > Prescribing Information > Adverse effects

Report broken link

Media



Antipsychotics

Speed Pharmacology - YouTube 38 0

Antipsychotics, Dopamine, and EPS

Dirty USMLE - YouTube 24 0

Video of patients with tardive dyskinesia

Abnormal Involuntary Movement Scale training video - YouTube 17 3

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Score: **0%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗

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Question 6 of 117

Which of the following types of tricyclic antidepressant is considered the safest in overdosage?

Nortriptyline	21%
Imipramine	16%
Dosulepin	13%
Lofepramine	41%
Clomipramine	8%

Lofepramine - the safest TCA in overdosage

Important for me Less important

The correct answer is **Lofepramine**. Lofepramine is a third-generation tricyclic antidepressant (TCA) and is considered the safest in overdosage due to its lower cardiotoxicity compared with other TCAs. This reduced cardiotoxicity is because lofepramine has less affinity for cardiac fast sodium channels, which are responsible for the life-threatening arrhythmias associated with TCA overdose.

Nortriptyline is a second-generation TCA and while it has a lower risk of cardiotoxicity compared to first-generation TCAs, it still presents a significant risk in overdose situations. Its side effects can include tachycardia, QT interval prolongation, and complete heart block.

Imipramine, another second-generation TCA, also carries a higher risk of cardiotoxicity in overdose than lofepramine. It may cause serious cardiovascular complications such as arrhythmias, hypertension or hypotension, and even cardiac arrest.

Dosulepin (also known as Dothiepin) has been shown to have the highest fatality rate in overdose of all TCAs according to UK data from the National Programme on Substance Abuse Deaths. It can lead to severe cardiovascular toxicity including tachycardia, hypotension and QT prolongation leading to torsades de pointes.

Lastly, **Clomipramine** is another second-generation TCA that carries significant risk in overdosage. It can cause seizures at relatively low levels of overdose and has strong anticholinergic effects

which can lead to dangerous conditions like paralytic ileus.

Therefore, despite all being part of the same class of medications - tricyclic antidepressants - there are significant differences in their safety profiles when taken in excessive quantities. Lofepramine's lower affinity for cardiac fast sodium channels makes it the safest option among these five choices in cases of overdosage.

Discuss (3) Improve

Next question

Tricyclic antidepressants

Tricyclic antidepressants (TCAs) are used less commonly now for depression due to their side-effects and toxicity in overdose. They are however used widely in the treatment of neuropathic pain, where smaller doses are typically required.

The primary mechanism by which TCAs exert their antidepressant effects is through the inhibition of the reuptake of neurotransmitters

- Serotonin (5-HT): This neurotransmitter has a pivotal role in mood regulation. Inhibition of its reuptake leads to increased concentrations in the synaptic cleft, enhancing serotonergic neurotransmission.
- Noradrenaline (NA): Similar to 5-HT, blocking the reuptake of NA increases its synaptic cleft concentration, intensifying noradrenergic neurotransmission.

As well as 5-HT and NA, tricyclics interact with number of other receptors that contribute to their side-effect profile:

- antagonism of histamine receptors
  - drowsiness
- antagonism of muscarinic receptors
  - dry mouth
  - blurred vision
  - constipation
  - urinary retention
- antagonism of adrenergic receptors
  - postural hypotension
- lengthening of QT interval

Choice of tricyclic

- low-dose amitriptyline is commonly used in the management of neuropathic pain and the prophylaxis of headache (both tension and migraine)
- lofepramine has a lower incidence of toxicity in overdose
- amitriptyline and dosulepin (dothiepin) are considered the most dangerous in overdose

More sedative	Less sedative
Amitriptyline Clomipramine Dosulepin Trazodone*	Imipramine Lofepramine Nortriptyline

*trazodone is technically a 'tricyclic-related antidepressant'

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Antidepressants

Speed Pharmacology - YouTube

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Question 7 of 117

A 68-year-old gentleman is brought into hospital by his husband who says he has reported seeing flashing images of foxes and badgers in their living room. This is something that is extremely distressing to the patient, and has made him reluctant to venture into some areas of the house. You wonder if this might be Charles-Bonnet syndrome.

Which of the following risk factors may pre-dispose this gentleman to Charles-Bonnet syndrome?

Caucasian	4%
Peripheral visual impairment	80%
Male gender	8%
Hypertension	4%
Occupational history of working in sewers	5%

Charles-Bonnet syndrome - peripheral visual impairment is a risk factor

Important for me Less important

Charles-Bonnet syndrome is characterised by visual hallucinations associated with eye disease.

Most common visual hallucinations are faces, children and wild animals.

It occurs in patients of increasing age; equally amongst males and females; and with no known increased risk with family history.

Discuss (4) Improve

Next question

Charles-Bonnet syndrome

Charles-Bonnet syndrome (CBS) is characterised by persistent or recurrent complex hallucinations (usually visual or auditory), occurring in clear consciousness. This is generally against a background of visual impairment (although visual impairment is not mandatory for a diagnosis). Insight is usually preserved. This must occur in the absence of any other significant neuropsychiatric disturbance.

Risk factors include:

- Advanced age
- Peripheral visual impairment
- Social isolation
- Sensory deprivation
- Early cognitive impairment

CBS is equally distributed between sexes and does not show any familial predisposition. The most common ophthalmological conditions associated with this syndrome are age-related macular degeneration, followed by glaucoma and cataract.

Well-formed complex visual hallucinations are thought to occur in 10-30 per cent of individuals with severe visual impairment. Prevalence of CBS in visually impaired people is thought to be between 11 and 15 per cent.

Around a third find the hallucinations themselves an unpleasant or disturbing experience. In a large study published in the British Journal of Ophthalmology, 88% had CBS for 2 years or more, resolving in only 25% at 9 years (thus it is not generally a transient experience).

Cox (2014) Negative outcome Charles Bonnet Syndrome. Br J Ophthalmol.

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Question 8 of 117

Which one of the following is least recognised as a potential adverse effect of electroconvulsive therapy?

Nausea	13%
Epilepsy	47%
Cardiac arrhythmias	23%
Short term memory impairment	14%
Headache	4%

Although electroconvulsive therapy, by definition, causes a controlled seizure there is no increased risk of epilepsy in the long-term.

Discuss (3) | Improve

Next question

Electroconvulsive therapy

Electroconvulsive therapy is a useful treatment option for patients with severe depression refractory to medication (e.g. catatonia) those with psychotic symptoms. The only absolute contraindications is raised intracranial pressure.

Short-term side-effects

- headache
- nausea
- short term memory impairment
- memory loss of events prior to ECT
- cardiac arrhythmia

Long-term side-effects

- some patients report impaired memory

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Media

Video patient uploaded of his ECT session

Individual - YouTube 8 10

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Score: **12.5%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓

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Question 9 of 117

A 62-year-old man is brought to the doctors by his daughter. Four weeks ago his wife died from metastatic breast cancer. He reports being tearful every day but his daughter is concerned because he is constantly 'picking fights' with her over minor matters and issues relating to their family past. The daughter also reports that he has on occasion described hearing his wife talking to him and on one occasion he prepared a meal for her.

Despite this he has started going walking again with friends and says that he is determined to get 'back on track'.

What is the most likely diagnosis?

Atypical grief reaction	20%
Depression without psychotic features	3%
Delusional disorder	2%
Depression with psychotic features	18%
Normal grief reaction	56%

Discuss (4) | Improve

Next question

Grief reaction

It is normal for people to feel sadness and grief following the death of a loved one and this does not necessarily need to be medicalised. However, having some understanding of the potential stages a person may go through whilst grieving can help determine whether a patient is having a 'normal' grief reaction or is developing a more significant problem.

One of the most popular models of grief divides it into 5 stages.

- Denial: this may include a feeling of numbness and also pseudohallucinations of the deceased, both auditory and visual. Occasionally people may focus on physical objects that remind them of their loved one or even prepare meals for them
- Anger: this is commonly directed against other family members and medical professionals
- Bargaining
- Depression
- Acceptance

It should be noted that many patients will not go through all 5 stages.

Abnormal, or atypical, grief reactions are more likely to occur in women and if the death is sudden and unexpected. Other risk factors include a problematic relationship before death or if the patient has not much social support.

Features of atypical grief reactions include:

- delayed grief: sometimes said to occur when more than 2 weeks passes before grieving begins
- prolonged grief: difficult to define. Normal grief reactions may take up to and beyond 12 months

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Question 11 of 117

You a reviewing a 24-year-old man who complains of auditory hallucinations. These have become increasingly common and are now happening on a daily basis. Which one of the following factors in his history is the strongest risk factor for psychotic disorders?

Indian subcontinent ethnicity	1%
Having a parent with schizophrenia	76%
A history of long-term cannabis use	16%
A history of being sexually abused when younger	7%
Working in the performing arts	1%

Family history is the strongest risk factor for psychotic disorders

Important for me Less important

The correct answer in this case is **Having a parent with schizophrenia**. This is because a family history of schizophrenia, particularly in first-degree relatives such as parents, significantly increases the risk of developing psychotic disorders. It is estimated that individuals with a parent who has schizophrenia have around a 10% chance of developing the condition themselves. This increased risk is thought to be due to both genetic factors and shared environmental influences.

Indian subcontinent ethnicity is not considered a strong risk factor for psychotic disorders. Although some studies have suggested that certain ethnic groups may have higher rates of psychosis compared to others, these differences are often attributed to social and environmental factors rather than inherent biological differences between ethnicities.

A history of **long-term cannabis use** has been associated with an increased risk of developing psychotic disorders, but the strength of this association is weaker than having a parent with schizophrenia. While there is evidence suggesting that regular cannabis use can increase the likelihood of experiencing psychotic symptoms, it remains unclear whether this relationship is causal or simply reflects an underlying vulnerability to psychosis among individuals who use cannabis.

While a history of being **sexually abused when younger** has been linked to various mental

health issues, including depression, anxiety, and post-traumatic stress disorder (PTSD), the association between childhood sexual abuse and psychotic disorders is less clear-cut. Some studies have reported an increased risk of psychosis among individuals who experienced sexual abuse during childhood; however, this relationship appears to be weaker than the link between parental schizophrenia and psychosis.

Finally, **working in the performing arts** does not represent a significant risk factor for psychotic disorders. Although some research has suggested that creative individuals may be more prone to certain mental health issues such as mood disorders or substance misuse problems, there is no robust evidence linking involvement in the performing arts specifically with an increased risk of developing psychosis.

Discuss (3) Improve

Next question

Schizophrenia: epidemiology

The strongest risk factor for developing a psychotic disorder (including schizophrenia) is family history. Having a parent with schizophrenia leads to a relative risk (RR) of 7.5.

Risk of developing schizophrenia

- monozygotic twin has schizophrenia = 50%
- parent has schizophrenia = 10-15%
- sibling has schizophrenia = 10%
- no relatives with schizophrenia = 1%

Other selected risk factors for psychotic disorders include:

- Black Caribbean ethnicity - RR 5.4
- Migration - RR 2.9
- Urban environment- RR 2.4
- Cannabis use - RR 1.4

Next question

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Links

NICE

2014 Schizophrenia guidelines

2 0

Report broken link

Media



Schizophrenia

Rhesus Medicine - YouTube 2 0



Schizophrenia

Osmosis - YouTube 5 2

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Score: **9.1%**

1 ✕

2 ✕

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Question 10 of 117

A 65-year-old woman presents with a six-month history of low mood and anhedonia. She has tried cognitive behavioural therapy without benefit. She has also had four-week trials of sertraline and citalopram without improvement. The patient is keen to trial a medication from a different class of anti-depressants.

What drug has a different mechanism to those already trialled?

Duloxetine	60%
Escitalopram	5%
Fluoxetine	10%
Fluvoxamine	20%
Paroxetine	5%

Duloxetine mechanism of action = serotonin and noradrenaline reuptake inhibitor

Important for me Less important

Duloxetine is the correct answer. Duloxetine is a serotonin and noradrenaline reuptake inhibitor. Sertraline and citalopram are both selective serotonin reuptake inhibitors (SSRIs), and duloxetine is the only drug listed above that is not an SSRI. Duloxetine is licensed for depression and anxiety disorders, diabetic neuropathy and stress incontinence.

Escitalopram is the incorrect answer as like sertraline and citalopram, it is an SSRI. Escitalopram is an active enantiomer of citalopram and is licensed for depression, anxiety disorders and obsessive-compulsive disorder (OCD).

Fluoxetine is the incorrect answer as like sertraline and citalopram, it is an SSRI. Fluoxetine is licenced for treating depression, bulimia, obsessive-compulsive disorder, and vasomotor menopausal symptoms.

Fluvoxamine is the incorrect answer as like sertraline and citalopram, it is an SSRI. Fluvoxamine is licensed for depression and OCD but is rarely used in the UK.

Paroxetine is the incorrect answer as like sertraline and citalopram, it is an SSRI. Paroxetine is licensed for depression and anxiety disorders, OCD and vasomotor menopausal symptoms. However, it has a higher incidence of discontinuation symptoms than other SSRIs.

Discuss (1) Improve

Next question

Serotonin and noradrenaline reuptake inhibitors

Serotonin and noradrenaline reuptake inhibitor (SNRI's) are a class of relatively new antidepressants. Inhibiting the reuptake increases the concentrations of serotonin and noradrenaline in the synaptic cleft leading to the effects. Examples include venlafaxine and duloxetine. They are used to treat major depressive disorders, generalised anxiety disorder, social anxiety disorder and panic disorder and menopausal symptoms.

Next question

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Antidepressants

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Question 12 of 117

A 63-year-old patient presents to the emergency department with reports of haematemesis and black stools. She has a background of alcohol excess and typically drinks 8 units per day.

You initiate basic management and start seeing another patient when a crash call sounds, and you find the patient having a seizure.

What is the most likely time period since she last consumed alcohol?

24 hours	10%
36 hours	62%
4 hours	2%
6-12 hours	10%
72 hours	15%

Alcohol withdrawal

- symptoms: 6-12 hours
- seizures: 36 hours
- delirium tremens: 72 hours

Important for me Less important

36 hours is correct. Symptoms of alcohol withdrawal occur as GABA is the main inhibitory neurotransmitter in the central nervous system. This has certain binding sites for ethanol, so increases inhibition in the CNS when present. Long-term alcohol exposure to GABA results in continuous inhibition effects on the brain. Further, ethanol binds to glutamate, which is an excitatory amino acid in the CNS. When this binds to glutamate, this inhibits excitation of the CNS, worsening the inhibitory effect.

Mild symptoms can occur within six hours of alcohol cessation and the times in this question are rough guidelines. This will vary depending on individual patient factors such as their duration of alcohol dependence, and typical use. Early symptoms can include tremors, hyperreflexia, anxiety, gastrointestinal upset, headache, and palpitations.

Moderate symptoms include hallucinations and alcohol withdrawal seizures that can occur 12 to 24 hours after cessation of alcohol and are typically generalised in nature. Approximately half of those that have a withdrawal seizure will go on to have delirium tremens. Delirium tremens is the most severe form of alcohol withdrawal and occur due to autonomic dysfunction from excitation of the CNS. Vital sign abnormalities also occur. This can present with visual hallucinations, tachycardia, hypertension, hyperthermia, agitation, and diaphoresis. These symptoms can last up to seven days after alcohol withdrawal and sometimes can progress even longer than this.

24 hours is incorrect, seizures typically occur at the 36-hour period as explained above, however, time can vary widely.

4 hours s incorrect, in this time frame mild symptoms may begin to occur such as tremors, anxiety, and elevated blood pressure, although symptoms typically start from 6 hours onwards.

6-12 hours is incorrect, withdrawal symptoms typically start in this time frame and mild symptoms will occur such as tremors, hyperreflexia, anxiety, gastrointestinal upset, headache, and palpitations.

72 hours is incorrect, delirium tremens usually occur at this point and are the most severe outcome of alcohol withdrawal, as discussed above.

👍 👎 💬 Discuss (1) Improve

Next question

Alcohol withdrawal ★

Mechanism

- chronic alcohol consumption enhances GABA mediated inhibition in the CNS (similar to benzodiazepines) and inhibits NMDA-type glutamate receptors
- alcohol withdrawal is thought to be lead to the opposite (decreased inhibitory GABA and increased NMDA glutamate transmission)

Features

- symptoms start at 6-12 hours: tremor, sweating, tachycardia, anxiety
- peak incidence of seizures at 36 hours
- peak incidence of delirium tremens is at 48-72 hours: coarse tremor, confusion, delusions, auditory and visual hallucinations, fever, tachycardia

Management

- patients with a history of complex withdrawals from alcohol (i.e. delirium tremens, seizures, blackouts) should be admitted to hospital for monitoring until withdrawals stabilised
- first-line: long-acting benzodiazepines e.g. chlordiazepoxide or diazepam. Lorazepam may be preferable in patients with hepatic failure. Typically given as part of a reducing dose protocol
- carbamazepine also effective in treatment of alcohol withdrawal
- phenytoin is said not to be as effective in the treatment of alcohol withdrawal seizures

Next question

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Score: **8.3%**

1	✗
2	✗
3	✗
4	✗
5	✗
6	✗
7	✓
8	✗
9	✗
10	✗

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Question 13 of 117

A 19-year-old woman presents with fatigue for several months. Her mother accompanies her, explaining that she is worried about her daughter's lack of appetite and that she has not been wanting to eat food. The patient explains that she feels she is fat and has been exercising at the gym every day for this reason. Her past medical history includes depression, asthma and amenorrhoea for the past 4 months.

On examination, she appears petite and very thin. Soft, fine hair is visible over the face and arms. She undergoes blood tests, the results of which are awaited.

What is most likely, given the diagnosis?

Low cortisol	15%
Low growth hormone	14%
Raised cholesterol	48%
Raised follicle-stimulating hormone (FSH)	19%
Raised potassium	5%

Anorexia features

- most things low
- **G**'s and **C**'s raised: **g**rowth hormone, **g**lucose, salivary **g**lands, **c**ortisol, **c**holesterol, **c**arotinaemia

Important for me Less important

This patient's history and presentation is suggestive of anorexia nervosa. This condition is characterised by low body weight, body image disturbance and an intense fear of gaining weight. Associated physical changes include the development of lanugo hair, bradycardia and hypotension. The general rule of thumb is that most investigations are 'low'; however, the 'G's and 'C's are raised. Of the options listed, **raised cholesterol** is the correct answer. This is thought to be due to decreased catabolism and stress-induced hypercortisolaemia.

Low cortisol is incorrect. Patients with anorexia nervosa are more likely to present with raised

cortisol, as part of an adaptive mechanism to maintain euglycaemia.

Low growth hormone is incorrect. Patients with anorexia nervosa have raised growth hormone levels, presumably as a compensatory response.

Raised follicle-stimulating hormone (FSH) is incorrect. Patients with the condition typically show low FSH levels, accompanied by hypothalamic amenorrhoea. The patient in this scenario reports a history of amenorrhoea for 4 months.

Raised potassium is incorrect. Patients with anorexia nervosa usually have low potassium due to malnutrition.

Discuss | Improve

Next question

Anorexia nervosa: features

Anorexia nervosa is associated with a number of characteristic clinical signs and physiological abnormalities which are summarised below

Features

- reduced body mass index
- bradycardia
- hypotension
- enlarged salivary glands

Physiological abnormalities

- hypokalaemia
- low FSH, LH, oestrogens and testosterone
- raised cortisol and growth hormone
- impaired glucose tolerance
- hypercholesterolaemia
- hypercarotinaemia
- low T3

Next question

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Question 14 of 117

A 77-year-old woman presents to the emergency department with shortness of breath, productive cough and confusion. She is treated for delirium, secondary to a chest infection, with intravenous antibiotics and admitted to the geriatrics ward for observation.

Overnight, she becomes agitated and restless. Initial measures to settle her are unsuccessful; the on-call doctor prescribes haloperidol, which takes effect quickly and reduces her agitation.

What receptor does this drug primarily antagonise?

$5HT_2$	11%
$5HT_3$	9%
D_1	20%
D_2	58%
H_1	2%

Haloperidol - dopamine D2 receptor antagonist, blocking dopaminergic transmission in the mesolimbic pathways

Important for me Less important

Haloperidol is a first-generation, 'typical' antipsychotic commonly used for a number of purposes. Apart from its use as an antipsychotic in psychiatric patients, it is often used in the context of delirium as seen here. It also plays a role in the management of nausea, especially in the palliative setting. It binds to numerous receptors, with different affinities for each. Primarily, it antagonises the dopamine **D_2 receptor**.

Haloperidol also antagonises the serotonin **5HT_2** receptor. However, its effect on the D_2 receptor is far more effective at any given concentration.

The drug is not known to significantly affect the serotonin **5HT_3 receptor**. Examples of antagonists of this receptor include the antiemetic ondansetron and newer-generation, 'atypical' antipsychotics such as quetiapine and olanzapine.

The drug also binds to the dopamine **D_1 receptor**. However, this effect is not as significant as the effect on the D_2 receptor.

Haloperidol has some effect on the histamine **H_1 receptor**. This effect, however, requires much higher concentrations of haloperidol.

Discuss | Improve

Next question

Antipsychotics

Antipsychotics are a group of drugs used in the management of schizophrenia and other forms of psychosis, mania and agitation. They are usually divided into typical and atypical antipsychotics. The atypical antipsychotics were developed due to the problematic extrapyramidal side-effects which are associated with the first generation of typical antipsychotics.

	Typical antipsychotics	**Atypical antipsychotics**
Mechanism of action	Dopamine D2 receptor antagonists, blocking dopaminergic transmission in the mesolimbic pathways	Act on a variety of receptors (D2, D3, D4, 5-HT)
Adverse effects	Extrapyramidal side-effects and hyperprolactinaemia common	Extrapyramidal side-effects and hyperprolactinaemia less common Metabolic effects
Examples	Haloperidol Chlorpromazine	Clozapine Risperidone Olanzapine

The rest of this section will focus on typical antipsychotics, with atypical antipsychotics covered elsewhere.

Extrapyramidal side-effects (EPSEs)

- Parkinsonism
- acute dystonia
  - sustained muscle contraction (e.g. torticollis, oculogyric crisis)
  - may be managed with procyclidine

- akathisia (severe restlessness)
- tardive dyskinesia (late onset of choreoathetoid movements, abnormal, involuntary, may occur in 40% of patients, may be irreversible, most common is chewing and pouting of jaw)

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Other side-effects

- antimuscarinic: dry mouth, blurred vision, urinary retention, constipation
- sedation, weight gain
- raised prolactin
  - may result in galactorrhoea
  - due to inhibition of the dopaminergic tuberoinfundibular pathway
- impaired glucose tolerance
- neuroleptic malignant syndrome: pyrexia, muscle stiffness
- reduced seizure threshold (greater with atypicals)
- prolonged QT interval (particularly haloperidol)

Next question

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BNF

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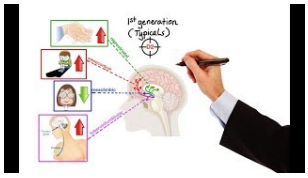
Psychoses and related disorders

Clinical Knowledge Summaries 2 1

Schizophrenia > Prescribing Information > Adverse effects

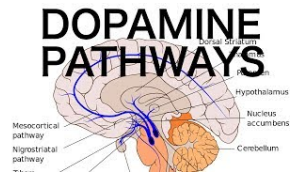
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Media



Antipsychotics

Speed Pharmacology - YouTube 38 0



Antipsychotics, Dopamine, and EPS

Dirty USMLE - YouTube 24 0



Video of patients with tardive dyskinesia

Abnormal Involuntary Movement Scale training video - YouTube 17 3

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Score: **7.1%**

1 ✕

2 ✕

PassMedicine

Question 15 of 117

Which one of the following selective serotonin reuptake inhibitors has the highest incidence of discontinuation symptoms?

Paroxetine	52%
Citalopram	16%
Escitalopram	5%
Fluoxetine	13%
Sertraline	14%

Paroxetine - higher incidence of discontinuation symptoms

Important for me Less important

The correct answer is **Paroxetine**. Paroxetine, a selective serotonin reuptake inhibitor (SSRI), has the highest incidence of discontinuation symptoms amongst all SSRIs. This is primarily due to its short half-life which leads to rapid plasma clearance. As a result, abrupt cessation or missed doses can lead to withdrawal symptoms such as dizziness, sleep disturbances, mood swings and irritability.

Citalopram and **Escitalopram**, though also SSRIs, have a lower incidence of discontinuation symptoms compared to Paroxetine. Their longer half-lives allow for more gradual withdrawal from the system, reducing the likelihood of experiencing withdrawal symptoms. However, it's important to note that discontinuation symptoms can still occur with these medications if they are stopped abruptly.

Fluoxetine has the lowest risk of causing discontinuation symptoms among all SSRIs due to its long half-life and active metabolites. It allows for a more gradual decrease in blood levels even when treatment is abruptly stopped.

Sertraline, while having a shorter half-life than Fluoxetine, Citalopram and Escitalopram but longer than Paroxetine, falls somewhere in between these drugs in terms of risk for discontinuation syndrome.

In conclusion, all SSRIs have potential for causing discontinuation symptoms if stopped abruptly; however, this risk is significantly higher with Paroxetine due to its short half-life and rapid plasma clearance. Therefore gradual tapering off is recommended under medical supervision according to UK guidelines.

Discuss (3) Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

Next question

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2 6

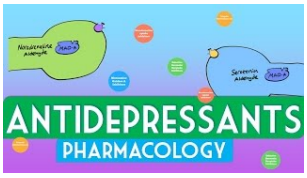
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Media



Antidepressants

Speed Pharmacology - YouTube 30 2



Antidepressants Pharmacology

Soton Brain Hub - YouTube 9 3

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Score: **6.7%**

1 ✕

2 ✕

3 ✕

PassMedicine

Question 16 of 117

Which one of the following symptoms may indicate mania rather than hypomania?

Predominately elevated mood	15%
Delusions of grandeur	67%
Increased appetite	2%
Flight of ideas	13%
Irritability	3%

Whilst criteria vary (e.g. ICD-10, DSM-5) the consistent difference between mania and hypomania is the presence of psychotic symptoms.

Discuss (2) | Improve

Next question

Hypomania vs. mania

Mania	Hypomania
• Lasts for at least 7 days - Causes severe functional impairment in social and work setting • May require hospitalization due to risk of harm to self or others • May present with **psychotic symptoms**	• A lesser version of mania • Lasts for < 7 days, typically 3-4 days. Can be high functioning and does not impair functional capacity in social or work setting • Unlikely to require hospitalization • Does not exhibit any psychotic symptoms

Therefore, the length of symptoms, severity and presence of psychotic symptoms (e.g. delusions of grandeur, auditory hallucinations) helps differentiates mania from hypomania.

The following symptoms are common to both hypomania and mania

Mood

- predominately elevated
- irritable

Speech and thought

- pressured
- flight of ideas: characterised by rapid speech with frequent changes in topic based on associations, distractions or word play
- poor attention

Behaviour

- insomnia
- loss of inhibitions: sexual promiscuity, overspending, risk-taking
- increased appetite

Next question

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Clinical Knowledge Summaries

3 3

Suspecting bipolar disorder

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Question 17 of 117

A 33-year-old woman presents requesting a series of blood tests as she believes she has breast cancer. She reports her mother was diagnosed with breast cancer at the age of 56 and recently she has felt like something was not right but did not describe any other symptoms.

She has a past medical history of squamous cell carcinoma of the cheek 8 years ago which was treated curatively by resection with no recurrence.

On examination, she has a body mass index of 25 kg/m^2. A breast examination is normal. Cardio-respiratory and abdominal examinations are normal.

You note that she had a normal mammogram 3 months previously and also had a panel of tumour marker blood tests which were all normal.

What is this condition likely to represent?

Conversion disorder	8%
Dissociative disorder	2%
Illness anxiety disorder	78%
Malingering	2%
Somatisation disorder	11%

Illness anxiety disorder (hypochondriasis) is the persistent belief in the presence of an underlying serious disease, e.g. cancer

Important for me Less important

The normal examination and lack of symptoms make a diagnosis of breast cancer unlikely. Combined with the persistent belief that this patient holds despite normal investigations, illness anxiety disorder (hypochondriasis) is the likely diagnosis.

There is no suggestion that she is seeking secondary gain from a diagnosis of breast cancer, therefore malingering is unlikely.

Conversion disorder is unlikely as there are no motor or sensory symptoms here. The patient's anxiety is specifically centred on her perception that she has a sinister diagnosis.

Dissociative disorder would usually present with psychiatric symptoms which are not seen here. There is no suggestion that she is disconnected from her thoughts, memories, identity or actions.

Somatisation disorder involves the presence of multiple physical symptoms for a prolonged period, rather than anxiety about a serious illness as seen in this case.

Discuss (2) Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder

- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Functional neurological disorder (conversion disorder)

- typically involves loss of motor or sensory function
- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)
- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Dissociative disorder

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor
- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Next question

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Royal College of Physicians 5 2

2013 Functional neurological symptoms

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Media

Dissociative disorders

Osmosis - YouTube 19 1

Factitious disorder

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Question 18 of 117

A 54-year-old man is brought to his general practitioner by his wife. She is concerned that he is not eating or drinking. He has a past medical history of depression.

Upon further questioning from his general practitioner, the patient reports that he sees no point in eating because he believes himself to be non-existent.

What is the correct description of what he is experiencing?

Capgras syndrome	6%
Cotard syndrome	82%
Couvade syndrome	4%
De Clerambault's syndrome	3%
Fregoli delusion	5%

Cotard syndrome is characterised by a person believing they are dead or non-existent

Important for me Less important

Cotard syndrome is correct. This is nihilistic delusional ideation whereby a patient believes they are dead or non-existent. It is associated with depression.

Capgras syndrome . This is a delusional disorder whereby a patient believes that someone close to them has been replaced by an imposter.

Couvade syndrome is incorrect. This is also known as a 'sympathetic pregnancy' is a disorder whereby biological fathers suffer the symptoms of pregnancy in the 1st and 3rd trimesters.

De Clerambault's Syndrome is incorrect. This is a delusional disorder whereby the patient thinks another person (typically wealthy or famous) is in love with them.

Fregoli delusion is incorrect. This is a delusional disorder whereby the patient believes that different people are in fact the same person in disguise.

Discuss | Improve

Next question

Cotard syndrome

Cotard syndrome is a rare mental disorder where the affected patient believes that they (or in some cases just a part of their body) is either dead or non-existent. This delusion is often difficult to treat and can result in significant problems due to patients stopping eating or drinking as they deem it not necessary.

Cotard syndrome is associated with severe depression and psychotic disorders.

Next question

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Score: **11.1%**

1 ✗
2 ✗
3 ✗
4 ✗

PassMedicine

Question 19 of 117

A 58-year-old lady presents to her GP concerned her partner is being unfaithful. She appears very distressed by this yet after further questioning does not appear to have any evidence to support her claims, yet she is convinced she is right. What might this concern be a symptom of?

Capgras' delusion	8%
Grandiose delusion	3%
de Clerambault's syndrome	8%
Othello's syndrome	78%
Charles Bonnet syndrome	3%

De Clerambault's syndrome also called erotomania is a delusional belief that someone else is in love with the patient. Charles Bonnet syndrome is the experience of complex visual hallucinations in patients with partial or severe blindness.

Discuss (2) | Improve

Next question

Othello's syndrome

Othello's syndrome is pathological jealousy where a person is convinced their partner is cheating on them without any real proof. This is accompanied by socially unacceptable behaviour linked to these claims.

Next question

PassMedicine

Question 20 of 117

You are considering prescribing a selective serotonin reuptake inhibitor for a patient with depression. Which class of drug is most likely to interact with a selective serotonin reuptake inhibitor?

Beta-blocker	7%
Thiazolidinediones	6%
Tetracycline	12%
Statin	12%
Triptan	63%

Triptans should be avoided in patients taking a SSRI

Important for me Less important

Triptans should be avoided in patients taking a selective serotonin reuptake inhibitor due to the increased risk of serotonin syndrome.

Discuss (3) Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

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- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness

- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

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2022 Depression in adults: treatment and management

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Antidepressants

Speed Pharmacology - YouTube

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Question 21 of 117

You are a junior doctor on the acute medical take. Your next patient has been admitted with an exacerbation of heart failure.

Whilst exploring his past medical history he confides in you he was in a road traffic collision 3 months ago in which a family friend was killed.

He explains he is struggling to sleep and feels he is constantly re-living the accident. He states he is afraid to leave the house in case it was to happen again and that any loud noises cause him to panic. He has increased his alcohol intake to try and forget about it and to help him sleep.

Which of the following treatments is most likely to help this man?

Olanzapine	4%
Eye movement desensitisation and reprocessing (EMDR) therapy	85%
GP to review in one month	1%
Single-session debrief therapy	4%
Tricyclic antidepressant	6%

PTSD management - trauma-focused cognitive behavioural therapy or EMDR

Important for me Less important

Olanzapine along with most other antipsychotics are not used in the management of post-traumatic stress disorder (PTSD). NICE recommends a trial of risperidone in patients with severe cases of PTSD.

EMDR therapy and cognitive behavioural therapy (CBT) can be trialled in patients were severe cases of post-traumatic stress disorder.

In mild cases lasting less than 4 weeks watchful waiting can be used. It may be appropriate in these scenarios for a GP to regularly review the patient. However in the above case, given the man in the above scenario has experienced severe symptoms for the past 12 weeks, this option would not be appropriate.

Single-session debrief therapy is not recommended following traumatic events and so this option is not correct.

Tricyclic antidepressants are not recommended in PTSD. If drug therapy is the be tried then SSRIs such as sertraline or venlafaxine (SNRI) can be tried.

Discuss (3) Improve

Next question

Post-traumatic stress disorder

Post-traumatic stress disorder (PTSD) can develop in people of any age following a traumatic event, for example, a major disaster or childhood sexual abuse. It encompasses what became known as 'shell shock' following the first world war. One of the DSM-IV diagnostic criteria is that symptoms have been present for more than one month.

Features

- re-experiencing: flashbacks, nightmares, repetitive and distressing intrusive images
- avoidance: avoiding people, situations or circumstances resembling or associated with the event
- hyperarousal: hypervigilance for threat, exaggerated startle response, sleep problems, irritability and difficulty concentrating
- emotional numbing - lack of ability to experience feelings, feeling detached

from other people

- depression
- drug or alcohol misuse
- anger
- unexplained physical symptoms

Management

- following a traumatic event single-session interventions (often referred to as debriefing) are not recommended
- watchful waiting may be used for mild symptoms lasting less than 4 weeks
- military personnel have access to treatment provided by the armed forces
- trauma-focused cognitive behavioural therapy (CBT) or eye movement desensitisation and reprocessing (EMDR) therapy may be used in more severe cases

- drug treatments for PTSD should not be used as a routine first-line treatment for adults. If drug treatment is used then venlafaxine or a selective serotonin reuptake inhibitor (SSRI), such as sertraline should be tried. In severe cases, NICE recommends that risperidone may be used

Next question

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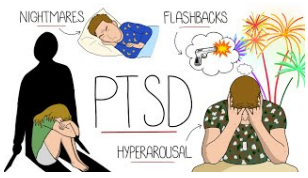
NICE

2018 PTSD guidelines

1 2

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Media



Post-traumatic stress disorder

Rhesus Medicine - YouTube 3 0



PassMedicine

Question 22 of 117

A 23-year-old male presents to his GP two weeks after a road traffic accident concerned about increased anxiety levels, lethargy and headache. At the time he had a CT brain after banging his head on the steering wheel, which revealed no abnormality. Six months following this episode his symptoms have resolved. What did his original symptoms likely represent?

Conversion disorder	4%
Post-traumatic stress disorder	31%
Somatisation disorder	6%
Generalised anxiety disorder	6%
Post-concussion syndrome	54%

In post-traumatic stress disorder the onset of symptoms is usually delayed and it tends to run a prolonged course

Discuss (2) | Improve

Next question

Post-concussion syndrome

Post-concussion syndrome is seen after even minor head trauma

Typical features include

- headache
- fatigue
- anxiety/depression
- dizziness

Next question

PassMedicine

Question 23 of 117

A 27-year-old woman is brought in by her husband. She has been refusing to go outside for the past 3 months, telling her husband she is afraid of catching avian flu. On exploring this further she is concerned due to the high number of migrating birds she can see in her garden. She reports that the presence of her husbands socks on the washing line in the garden alerted her to this. What is the most likely diagnosis?

Depression	1%
Hypochondrial disorder	13%
Formal thought disorder	23%
Borderline personality disorder	4%
Acute paranoid schizophrenia	59%

The correct answer to this question is **Acute paranoid schizophrenia**. This condition is characterised by the presence of delusions, hallucinations, disorganised speech and behaviour. The patient's fear of catching avian flu from seeing migrating birds in her garden, despite no reasonable risk, can be seen as a delusion. Furthermore, the belief that her husband's socks on the washing line alerted her to this danger suggests a degree of thought disorder - another key feature of schizophrenia.

Depression, while it may cause individuals to withdraw from social activities and stay indoors, does not typically result in such specific and unusual fears or beliefs. Patients with depression may have low mood, loss of interest or pleasure in activities they once enjoyed, feelings of guilt or low self-worth, disturbed sleep or appetite, low energy and poor concentration.

Hypochondrial disorder, also known as illness anxiety disorder, involves excessive worry about having a serious illness despite having no or only mild symptoms. While the woman is indeed worried about getting sick (avian flu), her belief system around how she might contract it (from migrating birds in her garden) suggests a delusional process rather than an over-concern with normal bodily sensations.

A **Formal thought disorder** is a disturbance in the flow and organisation of thought. It can manifest as 'word salad' (incoherent speech), neologisms (making up new words), tangentiality (going off-topic) or loose associations (ideas slipping off track). While this woman appears to have

some degree of thought disorder - given her belief about the socks alerting her to danger - there are no indications that this is her primary issue.

Lastly, **Borderline personality disorder** involves patterns of instability in personal relationships, self-image and emotions. People with this condition often engage in impulsive actions and have intense episodes of anger or sadness. They may also experience periods of paranoia under stress. However, their delusions are usually transient and related to interpersonal issues rather than external threats like catching avian flu.

Discuss (11) Improve

Next question

Schizophrenia: features

Schneider's first rank symptoms may be divided into auditory hallucinations, thought disorders, passivity phenomena and delusional perceptions:

Auditory hallucinations of a specific type:

- two or more voices discussing the patient in the third person
- thought echo
- voices commenting on the patient's behaviour

Thought disorders

- thought insertion
- thought withdrawal
- thought broadcasting

Passivity phenomena:

- bodily sensations being controlled by external influence
- actions/impulses/feelings - experiences which are imposed on the individual or influenced by others

Delusional perceptions

- a two stage process) where first a normal object is perceived then secondly there is a sudden intense delusional insight into the objects meaning for the patient e.g. 'The traffic light is green therefore I am the King'.

Other features of schizophrenia include

- impaired insight
- negative symptoms
  - incongruity/blunting of affect
  - anhedonia (inability to derive pleasure)
  - alogia (poverty of speech)
  - avolition (poor motivation)
  - social withdrawal
- neologisms: made-up words
- catatonia

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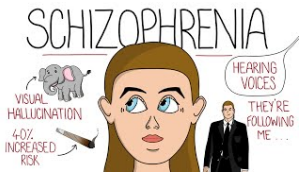
NICE

2014 Schizophrenia guidelines

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Media



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Question 24 of 117

A 19-year-old female has presented to the emergency department due to a week-long history of diarrhoea. She reports no blood in her stool or infective contacts. The patient feels she is sleeping more and feels generally weak.

She has a past medical history of depression for which she was started on sertraline. Two weeks ago she stopped taking this drug as she said she had a much brighter outlook on life. Her mental state is reported as currently stable and you assess her as euthymic.

Her general examination reveals bilaterally dilated pupils which are noted on previous attendances as a child.

What feature in this patient is most likely due to cessation of her medication?

Diarrhoea	69%
Euthymia	3%
Generalised weakness	6%
Hypersomnia	13%
Mydriasis	9%

Gastrointestinal side-effects such as diarrhoea are seen in SSRI discontinuation syndrome

Important for me Less important

Diarrhoea is the correct option as this young woman has stopped taking her sertraline two weeks prior to her presentation of protracted diarrhoea, which along with abdominal cramping and vomiting, are common symptoms seen in SSRI discontinuation syndrome. Furthermore, using Occam's razor, given the timeline and the normal blood results and lack of infective contacts, it is more likely to be this syndrome compared to inflammatory bowel disease or gastroenteritis.

Euthymia is incorrect as the SSRI discontinuation syndrome more commonly results in increased mood change.

Hypersomnia is an incorrect option because insomnia changes to the sleep pattern are more

commonly seen in SSRI discontinuation.

Generalised weakness is an incorrect option as this is more than likely due to diarrhoea and there is no focal neurology in the limbs to suggest anything different. Moreover, SSRI discontinuation syndrome can result in paraesthesias rather than a general feeling of fatigue and weakness.

Mydriasis is an incorrect option as SSRI discontinuation syndrome is not related to these pupillary changes; in fact, the serotonin syndrome caused by taking too much SSRI can result in this. The stem also clearly states these pupils have been dilated since a young age making congenital mydriasis the most likely diagnosis in this case.

Discuss (2) | Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known

pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions
- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms
- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
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Next question

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NICE 2 6

2022 Depression in adults: treatment and management

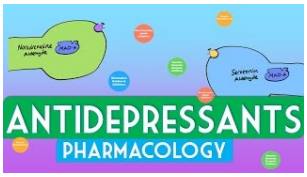
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Media



Antidepressants

Speed Pharmacology - YouTube 30 2



Antidepressants Pharmacology

Soton Brain Hub - YouTube 9 3

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PassMedicine

Question 25 of 117

A 90-year-old woman with no past medical history presents with increasing forgetfulness. Her daughter is worried that over the last four weeks her mother has been forgetting her grandchildren's names and stories from her upbringing. The patient states that she has had a loss of appetite, sometimes forgetting if she has eaten, is not getting good quality sleep and is angry with her daughter for taking her to the doctors. She sometimes sees and hears her recently deceased husband.

The mini-mental test score is 17/30 and the patient is not happy with this result.

What is the most likely diagnosis in this case?

Alzheimer's dementia	20%
Depression	53%
Frontotemporal lobe dementia	8%
Lewy body dementia	17%
Paraphrenia	2%

Severe depression can mimic dementia but gives a pattern of global memory loss rather than short-term memory loss - this is called pseudodementia

Important for me Less important

Depression is the correct answer. This is a classical presentation of pseudodementia - the most common mimic for dementia amongst elderly patients. Although there is evidence of some cognitive impairment, the key feature present is a global memory loss affecting both short and longer-term memory, over a short history of four weeks with reluctance to engage with clinical assessment. These symptoms, coupled with the recent loss of her husband, indicate a severe reactive depressive episode.

Alzheimer's dementia is a key differential diagnosis for these symptoms given the patient's age, though it would tend to present more gradually, with selective impairment of short-term memory, and relative sparing of longer-term memories.

Frontotemporal lobe dementia tends to present with more florid frontal lobe symptoms, e.g. dramatic behavioural change or emotional disinhibition and is less likely than depression in this instance.

Lewy body dementia shares some features of this case, including visual hallucinations and impaired cognition. However, the specific hallucination of the patient's husband is more likely related to a grief reaction and depression, which is also favoured by the relatively short symptom course. Question stems describing Lewy body dementia will often also give some hint towards a movement disorder.

Paraphrenia is incorrect as this disorder tends to manifest as (often persecutory) audiovisual hallucinations in older patients, rather than the cognitive impairment seen in this case. The isolated hallucination of this patient's husband is also more in keeping with a normal grief response than paraphrenia.

Discuss (4) Improve

Next question

Depression vs. dementia

Factors suggesting diagnosis of depression over dementia

- short history, rapid onset
- biological symptoms e.g. weight loss, sleep disturbance
- patient worried about poor memory
- reluctant to take tests, disappointed with results
- mini-mental test score: variable
- global memory loss (dementia characteristically causes recent memory loss)

Next question

Textbooks

PassMedicine

Question 26 of 117

A 84-year-old patient is brought to see you by his wife as she is worried about hallucinations he has been experiencing. She reports that he regularly sees cats walking around the house although they have never owned a cat. He is otherwise well in himself with no other concerns and does not seem troubled by the visions. He has a past medical history of hypertension, diabetes and cataracts and drinks approximately 20 units of alcohol per week.

What is the most likely diagnosis?

Schizophrenia	5%
Parkinson's disease	1%
Alzheimer's disease	2%
Alcohol excess	8%
Charles-Bonnet Syndrome	83%

Patients with Charles-Bonnet syndrome experience persistent or recurrent complex visual or auditory hallucinations however generally have full insight into their condition

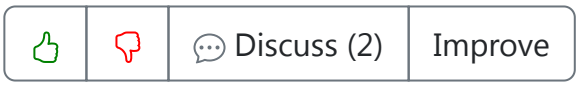
Important for me Less important

The correct answer is Charles-Bonnet Syndrome. This classically presents as recurrent visual or auditory hallucinations in patients with failing eyesight. It is thought that as the brain receives less visual stimulus than it is used to, it begins to fill in the gaps with previously stored images. Hallucinations can either be simple as in patterns or lines or complex as in people or animals. They are usually pleasant hallucinations and most patients retain insight. In this patient with a history of cataract Charles-Bonnet syndrome is most likely.

Whilst hallucinations can occur in both Alzheimer's Disease and Parkinson's Disease, there is nothing in the history to suggest any problems with memory or a tremor, making 2 and 4 unlikely. Likewise other than hallucinations there is no further evidence of schizophrenia in particular no 1st rank symptoms such as delusions, thought insertion, removal or broadcasting. Additionally patients with Alzheimer's tend to experience auditory as opposed to visual hallucinations.

Whilst 20 units of alcohol a week is over the revised recommend weekly intake it is unlikely

significant enough to cause any serious medical complications. Furthermore there is nothing else in the history to suggest alcoholism as a cause of his symptoms.



Next question

Charles-Bonnet syndrome ★

Charles-Bonnet syndrome (CBS) is characterised by persistent or recurrent complex hallucinations (usually visual or auditory), occurring in clear consciousness. This is generally against a background of visual impairment (although visual impairment is not mandatory for a diagnosis). Insight is usually preserved. This must occur in the absence of any other significant neuropsychiatric disturbance.

Risk factors include:

- Advanced age
- Peripheral visual impairment
- Social isolation
- Sensory deprivation
- Early cognitive impairment

CBS is equally distributed between sexes and does not show any familial predisposition. The most common ophthalmological conditions associated with this syndrome are age-related macular degeneration, followed by glaucoma and cataract.

Well-formed complex visual hallucinations are thought to occur in 10-30 per cent of individuals with severe visual impairment. Prevalence of CBS in visually impaired people is thought to be between 11 and 15 per cent.

Around a third find the hallucinations themselves an unpleasant or disturbing experience. In a large study published in the British Journal of Ophthalmology, 88% had CBS for 2 years or more, resolving in only 25% at 9 years (thus it is not generally a transient experience).

Cox (2014) Negative outcome Charles Bonnet Syndrome. Br J Ophthalmol.

Next question



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Question 27 of 117

A 75-year-old woman is seen by her GP with concerns over her memory. She is extremely worried that she cannot remember recent conversations or events; her husband confirms they have repetitive conversations. This has been going on for five weeks and started suddenly following the death of the patient's sister. Over the same period, she has had low mood and energy, a reduced appetite and poor sleep. Despite her concern, the patient is reluctant to go to the memory clinic or take diagnostic tests for dementia.

What factor within the history would lead you to a diagnosis other than depression?

Memory loss of recent events	41%
Patient concern over memory loss	21%
Reluctance to engage in memory tests	14%
Short history	18%
Sleep disturbance	6%

Severe depression can mimic dementia but gives a pattern of global memory loss rather than short-term memory loss - this is called pseudodementia

Important for me Less important

The most likely diagnosis for this patient is depression. She has the core symptoms of low mood and low energy. In addition, she reports poor appetite and sleep quality. The trigger for her depression is likely the recent bereavement.

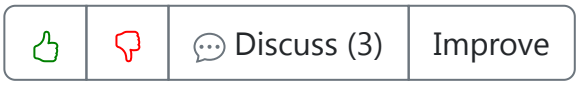
However, depression can mimic dementia. The key defining factor which distinguishes the two diagnoses is the pattern of memory loss: depression typically causes global memory loss, whereas dementia is more commonly a short-term memory loss. As such, the correct answer is **memory loss of recent events** because it is the only option which suggests a diagnosis of dementia rather than depression. One would expect this patient to describe a global memory loss involving short-term, long-term and working memory loss.

All of the other options are factors which are more in keeping with a diagnosis of depression rather than dementia.

Dementia would usually present over months to years' time-course, so the **short history** of 5 weeks is more suggestive of depression.

While certain types of dementia (such as Parkinson's dementia) are associated with **sleep disturbance**, it is much more common in depression.

The patient's **concern over memory loss** but **reluctance to engage in tests** are also factors which favour a diagnosis of depression over dementia.



Next question

Depression vs. dementia

Factors suggesting diagnosis of depression over dementia

- short history, rapid onset
- biological symptoms e.g. weight loss, sleep disturbance
- patient worried about poor memory
- reluctant to take tests, disappointed with results
- mini-mental test score: variable
- global memory loss (dementia characteristically causes recent memory loss)

Next question



Textbooks

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Question 28 of 117

A 36-year-old patient presents with nausea, headaches and palpitations. He has had multiple previous admissions with such symptoms over the past 2 years, each time no organic cause was found. What kind of disorder is this likely to represent?

Munchausen's syndrome	7%
Hypochondrial disorder	9%
Somatisation disorder	77%
Conversion disorder	6%
Dissociative disorder	1%

Unexplained symptoms

- **S**omatisation = **S**ymptoms
- hypo**C**hondria = **C**ancer

Important for me Less important

The correct answer is **Somatisation disorder**. This condition is characterised by the recurrent presentation of physical symptoms such as nausea, headaches, and palpitations in the absence of a detectable organic cause. These symptoms are not intentionally produced or feigned, distinguishing it from factitious disorders like Munchausen's syndrome. The patient may have multiple admissions over years due to these unexplained symptoms, which can cause significant distress and impairment in their daily life.

Munchausen's syndrome, also known as factitious disorder imposed on self, involves individuals deliberately producing or feigning physical or psychological symptoms. They do this to assume the sick role and gain attention or sympathy. However, there is no indication in the question that the patient is intentionally causing his own symptoms.

Hypochondrial disorder, now referred to as Illness Anxiety Disorder in DSM-5, involves a preoccupation with having or acquiring a serious illness. Patients with this condition misinterpret normal bodily sensations as signs of serious illness. However, they usually do not experience actual somatic symptoms like those described in the question.

Conversion disorder, also known as Functional Neurological Symptom Disorder (FNSD), typically presents with neurological symptoms such as paralysis, blindness, or seizures that cannot be explained by medical evaluation. The presented case does not describe any such neurological symptom.

Lastly, a **Dissociative disorder** involves disruptions or gaps in memory, awareness, identity or perception that are too extreme to be considered mere forgetfulness. These disorders often develop as a way to cope with trauma. The lack of any indications of such disruptions makes this option unlikely for the given case scenario.

Discuss (2) Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder

- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Functional neurological disorder (conversion disorder)

- typically involves loss of motor or sensory function
- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)
- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Dissociative disorder

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor

- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Next question

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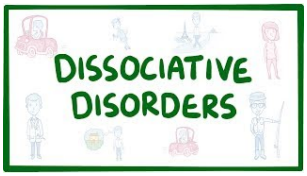
Links

Royal College of Physicians 5 2

2013 Functional neurological symptoms

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Media



PassMedicine

Question 29 of 117

An elderly patient in a nursing home is started on quetiapine due to persistent aggressive behaviour that has not responded to non-pharmacological approaches. Which of the following adverse effects do antipsychotics increase the risk of in elderly patients?

Atrial fibrillation	12%
Myocardial infarction	16%
Aspiration pneumonia	9%
Stroke	62%
Breast cancer	1%

Antipsychotics in the elderly - increased risk of stroke and VTE

Important for me Less important

The correct answer is **stroke**. Antipsychotic medications, such as quetiapine, can increase the risk of cerebrovascular events, including stroke, in elderly patients. This increased risk is particularly relevant for those with dementia-related psychosis. It is important to consider the potential benefits and risks when prescribing antipsychotics in this population.

Atrial fibrillation is not a known adverse effect of antipsychotic medications. While some case reports have suggested a possible association between antipsychotics and atrial fibrillation, there is insufficient evidence to establish a causal relationship.

Myocardial infarction has not been consistently linked to antipsychotic use in elderly patients. However, some antipsychotics can cause metabolic side effects such as weight gain, hyperglycemia, and dyslipidemia which may contribute to an increased risk of cardiovascular events over time. Nonetheless, this option does not specifically pertain to the direct adverse effects of antipsychotics on elderly patients.

The risk of **aspiration pneumonia** may be indirectly increased in elderly patients taking antipsychotic medications due to their sedative properties leading to reduced alertness and impaired swallowing reflexes. However, aspiration pneumonia itself is not considered a direct adverse effect of antipsychotic medications.

Lastly, **breast cancer** has not been shown to be directly associated with the use of antipsychotic medications in elderly patients. Some studies have suggested that certain atypical antipsychotics might increase prolactin levels which could theoretically lead to breast cancer development; however, this link remains inconclusive and requires further investigation.

Discuss (3) Improve

Next question

Antipsychotics

Antipsychotics are a group of drugs used in the management of schizophrenia and other forms of psychosis, mania and agitation. They are usually divided into typical and atypical antipsychotics. The atypical antipsychotics were developed due to the problematic extrapyramidal side-effects which are associated with the first generation of typical antipsychotics.

	Typical antipsychotics	**Atypical antipsychotics**
Mechanism of action	Dopamine D2 receptor antagonists, blocking dopaminergic transmission in the mesolimbic pathways	Act on a variety of receptors (D2, D3, D4, 5-HT)
Adverse effects	Extrapyramidal side-effects and hyperprolactinaemia common	Extrapyramidal side-effects and hyperprolactinaemia less common Metabolic effects
Examples	Haloperidol Chlorpromazine	Clozapine Risperidone Olanzapine

The rest of this section will focus on typical antipsychotics, with atypical antipsychotics covered elsewhere.

Extrapyramidal side-effects (EPSEs)

- Parkinsonism
- acute dystonia
  - sustained muscle contraction (e.g. torticollis, oculogyric crisis)
  - may be managed with procyclidine

- akathisia (severe restlessness)
- tardive dyskinesia (late onset of choreoathetoid movements, abnormal, involuntary, may occur in 40% of patients, may be irreversible, most common is chewing and pouting of jaw)

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Other side-effects

- antimuscarinic: dry mouth, blurred vision, urinary retention, constipation
- sedation, weight gain
- raised prolactin
  - may result in galactorrhoea
  - due to inhibition of the dopaminergic tuberoinfundibular pathway
- impaired glucose tolerance
- neuroleptic malignant syndrome: pyrexia, muscle stiffness
- reduced seizure threshold (greater with atypicals)
- prolonged QT interval (particularly haloperidol)

Next question

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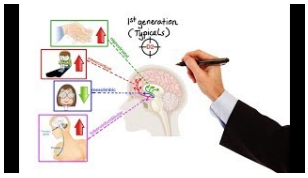
Psychoses and related disorders

Clinical Knowledge Summaries 2 1

Schizophrenia > Prescribing Information > Adverse effects

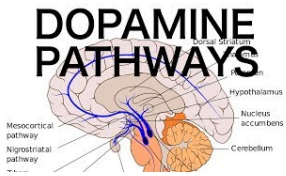
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Media



Antipsychotics

Speed Pharmacology - YouTube 38 0



Antipsychotics, Dopamine, and EPS

Dirty USMLE - YouTube 24 0



Video of patients with tardive dyskinesia

Abnormal Involuntary Movement Scale training video - YouTube 17 3

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Score: **17.2%**

1 ✕

2 ✕

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Question 30 of 117

A 24-year-old female is reviewed following a course of cognitive behaviour therapy for bulimia. She feels there has been no improvement in her condition and is interested in trying pharmacological treatments. Which one of the following is most suitable?

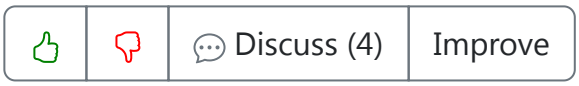
Low-dose citalopram	16%
Low-dose fluoxetine	49%
Low-dose amitriptyline	10%
High-dose amitriptyline	2%
High-dose fluoxetine	23%

The most suitable pharmacological treatment for a 24-year-old female with bulimia who has not responded to cognitive behaviour therapy is **high-dose fluoxetine**. Fluoxetine is a selective serotonin reuptake inhibitor (SSRI) and has been shown to be effective in reducing binge eating and purging behaviours associated with bulimia. The National Institute for Health and Care Excellence (NICE) guidelines recommend high-dose fluoxetine (60 mg daily) as the first-line pharmacological treatment for adults with bulimia nervosa.

Low-dose citalopram is not the best option in this case because, although it is also an SSRI, there is limited evidence supporting its use in treating bulimia. Furthermore, fluoxetine has more robust evidence and specific recommendations from NICE guidelines for the management of bulimia nervosa.

Low-dose fluoxetine may provide some benefit; however, it would not be as effective as high-dose fluoxetine. Studies have shown that higher doses of fluoxetine are more effective in reducing binge eating and purging behaviours compared to lower doses.

Low-dose amitriptyline and **high-dose amitriptyline** are both tricyclic antidepressants. Although they have demonstrated some efficacy in treating depression, their role in managing bulimia nervosa is less clear. Moreover, tricyclic antidepressants have a less favourable side effect profile compared to SSRIs like fluoxetine. Therefore, they are not considered the first-line treatment for bulimia nervosa according to UK guidelines.



Next question

Bulimia nervosa

Bulimia nervosa is a type of eating disorder characterised by episodes of binge eating followed by intentional vomiting or other purgative behaviours such as the use of laxatives or diuretics or exercising.

DSM 5 diagnostic criteria for a diagnosis of bulimia nervosa:

- recurrent episodes of binge eating (eating an amount of food that is definitely larger than most people would eat during a similar period of time and circumstances)
- a sense of lack of control over eating during the episode
- recurrent inappropriate compensatory behaviour in order to prevent weight gain, such as self-induced vomiting, misuse of laxatives, diuretics, or other medications, fasting, or excessive exercise.
    - recurrent vomiting may lead to erosion of teeth and Russell's sign - calluses on the knuckles or back of the hand due to repeated self-induced vomiting
- the binge eating and compensatory behaviours both occur, on average, at least once a week for three months.
- self-evaluation is unduly influenced by body shape and weight.
- the disturbance does not occur exclusively during episodes of anorexia nervosa.

Management

- referral for specialist care is appropriate in all cases
- NICE recommend bulimia-nervosa-focused guided self-help for adults
- If bulimia-nervosa-focused guided self-help is unacceptable, contraindicated, or ineffective after 4 weeks of treatment, NICE recommend that we consider individual eating-disorder-focused cognitive behavioural therapy (CBT-ED)
- children should be offered bulimia-nervosa-focused family therapy (FT-BN)
- pharmacological treatments have a limited role - a trial of high-dose fluoxetine is currently licensed for bulimia but long-term data is lacking

Next question



Textbooks

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Extended textbook

Links

Clinical Knowledge Summaries 5 1

Eating disoder guidelines

NICE 0 1

2017 Eating disorders: recognition and treatment

Report broken link

Media



Bulimia nervosa

Osmosis - YouTube 6 0

Report broken media

Score: **16.7%**

1 ✕

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Question 31 of 117

Rachel is a 45-year-old who has routine bloods for a health check. Blood tests show the following:

Na^+	125 mmol/l
K^+	4.3 mmol/l
Urea	5.3 mmol/l
Creatinine	60 µmol/l

She takes the following medications: sertraline, carbimazole, amlodipine, metformin, aspirin. Which of her medications is likely to be the cause of her hyponatraemia?

Aspirin	1%
Metformin	1%
Amlodipine	2%
Carbimazole	11%
Sertraline	84%

SSRIs are associated with hyponatraemia

Important for me Less important

Out of the list above sertraline is the medication known to cause hyponatraemia.

Other common drug causes of low sodium include: chlorpropramide, carbamazepine, selective serotonin reuptake inhibitor (SSRI) antidepressants, tricyclic antidepressants, lithium, MDMA/ecstasy, tramadol, haloperidol, vincristine, desmopressin, fluphenazine.

Discuss (3) Improve

Next question

SSRI: side-effects

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- hyponatraemia
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin: see above
- triptans: avoid SSRIs

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 30 years or at increased risk of suicide they should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness

- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

Next question

Textbooks

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Score: **16.1%**

1	✗
2	✗
3	✗
4	✗
5	✗
6	✗
7	✓
8	✗
9	✗
10	✗
11	✗
12	✗

PassMedicine

Question 32 of 117

You review a 55-year-old woman who has become dependant on temazepam, which was initially prescribed as a hypnotic. She is keen to end her addiction to temazepam and asks for help. Her current dose is 20mg on. What is the most appropriate strategy?

Switch to the equivalent zopiclone dose then slowly withdraw over the next 2 weeks	10%
Switch to the equivalent diazepam dose then slowly withdraw over the next 2 weeks	22%
Switch to the equivalent zopiclone dose then slowly withdraw over the next 2 months	14%
Switch to the equivalent chlordiazepoxide dose then slowly withdraw over the next 2 months	13%
Switch to the equivalent diazepam dose then slowly withdraw over the next 2 months	40%

The most appropriate strategy for this patient is to **switch to the equivalent diazepam dose then slowly withdraw over the next 2 months**. This approach is recommended because diazepam has a longer half-life than temazepam, which allows for a smoother and more gradual withdrawal process. Additionally, UK guidelines support using diazepam as the preferred benzodiazepine for withdrawal due to its long half-life and availability in lower doses, which facilitates gradual tapering.

The first option, **switch to the equivalent zopiclone dose then slowly withdraw over the next 2 weeks**, is not ideal because zopiclone is a non-benzodiazepine hypnotic (Z-drug) with similar effects on GABA receptors as benzodiazepines but with a different chemical structure. While it may be used as an alternative hypnotic agent in some cases, it is not suitable for benzodiazepine withdrawal due to its short half-life and lack of evidence supporting its use in this context.

Similarly, **switch to the equivalent zopiclone dose then slowly withdraw over the next 2 months** would also not be appropriate for the same reasons mentioned above. Zopiclone's short half-life and lack of evidence supporting its use in benzodiazepine withdrawal make it an unsuitable choice for this patient.

The option to **switch to the equivalent chlordiazepoxide dose then slowly withdraw over the next 2 months** is also not ideal. Although chlordiazepoxide has a longer half-life than temazepam and can be used for alcohol withdrawal management, it is not recommended for benzodiazepine withdrawal due to limited evidence supporting its efficacy compared to diazepam.

In conclusion, the best course of action in this case would be to switch the patient from temazepam to an equivalent dose of diazepam and then gradually taper the dose over a period of 2 months. This approach is supported by UK guidelines and offers the patient the best chance of successfully withdrawing from benzodiazepine dependence.

Discuss (4) Improve

Next question

Benzodiazepines

Benzodiazepines enhance the effect of the inhibitory neurotransmitter gamma-aminobutyric acid (GABA) by increasing the **frequency** of chloride channels. They therefore are used for a variety of purposes:

- sedation
- hypnotic
- anxiolytic
- anticonvulsant
- muscle relaxant

Patients commonly develop a tolerance and dependence to benzodiazepines and care should therefore be exercised on prescribing these drugs. The Committee on Safety of Medicines advises that benzodiazepines are only prescribed for a short period of time (2-4 weeks).

The BNF gives advice on how to withdraw a benzodiazepine. The dose should be withdrawn in steps of about 1/8 (range 1/10 to 1/4) of the daily dose every fortnight. A suggested protocol for patients experiencing difficulty is given:

- switch patients to the equivalent dose of diazepam
- reduce dose of diazepam every 2-3 weeks in steps of 2 or 2.5 mg
- time needed for withdrawal can vary from 4 weeks to a year or more

If patients withdraw too quickly from benzodiazepines they may experience benzodiazepine withdrawal syndrome, a condition very similar to alcohol withdrawal syndrome. This may occur up to 3 weeks after stopping a long-acting drug. Features include:

- insomnia
- irritability
- anxiety
- tremor

- loss of appetite
- tinnitus
- perspiration
- perceptual disturbances
- seizures

$GABA_A$ drugs

- benzodiazipines increase the **frequency** of chloride channels
- barbiturates increase the **duration** of chloride channel opening

Frequently **Ben**d - **Dur**ing **Barb**eque

...or...

Barbi**durat**es increase **durat**ion & **Fre**ndodiazepines increase **fre**quency

Next question

Textbooks

High-yield textbook

Extended textbook

Media

Benzodiazepines, bariburates and hypnotics (made easy)

Speed Pharmacology - YouTube 11 3

PassMedicine

Question 33 of 117

A 69-year-old woman who is a retired teacher was living with her daughter and granddaughter. The patient and the family reported a 6-month history of a lack of energy, reduced interest in activities, and worsening agitation together with sleep disturbances following the loss of her foster children. They felt as if she was behaving out of character by being indecisive and restless.

What is this patient suffering from?

Dementia	1%
Depression	77%
Generalised anxiety disorder	4%
Post-traumatic stress disorder	17%
Psychosis	1%

Elderly patients with depression are less likely to complain of low mood and instead may present with health anxiety, agitation and sleep disturbance

Important for me Less important

Depression in elderly patients presents atypically. They are less likely to complain of low mood and instead may present with health anxiety, agitation and sleep disturbance. Sleep disturbance, fatigue, psychomotor retardation, loss of interest in living, and hopelessness about the future may be more prevalent in late-life depression than in depression in younger or middle-aged adults.

Dementia is a decline in memory and other mental abilities as people grow older. It can cause memory problems, particularly remembering recent events, reduced concentration, personality or behaviour changes, apathy and withdrawal and loss of ability to do everyday tasks. Most of these signs are not present in this case, making dementia incorrect here.

Generalised anxiety disorder (GAD) is characterised by at least 6 months of excessive uncontrollable worry accompanied by symptoms of motor tension and vigilance and scanning. As with other anxiety disorders, GAD is less prevalent in older adults than younger adults and is incorrect here.

Post-traumatic stress disorder (PTSD) is less prevalent in older adults who report more somatic complaints such as appetite, sleep, or memory problems and fewer PTSD symptoms (especially arousal and numbing symptoms); they also report less depression and guilt than younger adults. This is therefore the incorrect answer due to the absence of these features.

Psychosis or late-onset psychotic symptoms may also result from a psychiatric cause (e.g., schizophrenia, delusional disorder, depression, bipolar disorder). Patients with a history of thought or mood disorders may have a reemergence of symptoms later in life as part of a remitting and relapsing course. No psychotic symptoms or features are reported in this case.

Discuss (2) Improve

Next question

Depression in older people

Older patients are less likely to complain of depressed mood

Features

- physical complaints (e.g. hypochondriasis)
- agitation
- insomnia

Management

- SSRIs are first line (adverse side-effect profile of TCAs more of an issue in the elderly)

Next question

Textbooks

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Question 34 of 117

A 65-year-old man is admitted to the hospital after being found at home in a confused state. He is unable to explain his condition but states that he was admitted for 10 days last month despite records showing his last admission to be 7 months ago. He is unable to recall what secondary school he attended and, after 1 week on the ward, he does not recognise his main doctor's face. He has a background of hypertension, ischemic stroke and alcoholic liver disease.

Examination shows normal tone, upgoing plantar reflexes on the right and a broad-based gait. There are bilateral cranial nerve 6 (CN 6) palsies associated with nystagmus.

What is the likely diagnosis in this patient?

Brain tumor	7%
Korsakoff's syndrome	67%
Lewy body dementia	5%
Transient global amnesia	5%
Vascular dementia	15%

Korsakoff's syndrome is a complication of Wernicke's encephalopathy. It's features include: anterograde amnesia, retrograde amnesia, and confabulation

Important for me Less important

This patient has the triad of confusion, ataxia and ophthalmoplegia, as well as anterograde and retrograde amnesia with confabulation. This is suggestive of Wernicke's encephalopathy that has progressed to **Korsakoff's syndrome**. Wernicke's encephalopathy is a neurological condition due to longstanding thiamine (vitamin B1) deficiency, commonly due to chronic alcohol abuse or malnutrition. It manifests as the triad of confusion, ataxia (broad-based gait) and oculomotor dysfunction (seen in this patient as CN 6 palsies and nystagmus). A known complication of untreated Wernicke's encephalopathy is Korsakoff's syndrome, which manifests as anterograde and retrograde amnesia as well as confabulation (a patient unconsciously makes up stories to fill a gap in their memory) such as this patient thinking he was admitted to the ward the previous week.

Given that this patient has the triad of Wernicke's encephalopathy and symptoms of Korsakoff's

syndrome on a background of alcohol abuse, it makes Korsakoff's syndrome more likely. **Brain tumours** most commonly present with early signs of increased intracranial pressure (headache, vomiting) and focal neurological deficits.

This patient's symptoms are not suggestive of **Lewy body dementia**. Lewy body dementia can be diagnosed by a patient with decreased cognition having 2 or more of the following symptoms: parkinsonism, visual hallucination, waxing-and-waning levels of consciousness and rapid-eye-movement (REM) sleep behaviour disorder.

Transient global amnesia involves retrograde and anterograde amnesia occurring to an individual following a stressful event and lasting commonly between 2-8 hours, but less than 24 hours. This patient's symptoms and history suggest Korsakoff's syndrome.

Vascular dementia presents with a step-wise decline in cognition, with early deficits in executive function. It does not cause bilateral CN 6 palsies, nystagmus and ataxia.

Discuss (1) Improve

Next question

Korsakoff's syndrome

Overview

- marked memory disorder often seen in alcoholics
- thiamine deficiency causes damage and haemorrhage to the mammillary bodies of the hypothalamus and the medial thalamus
- in often follows on from untreated Wernicke's encephalopathy

Features

- anterograde amnesia: inability to acquire new memories
- retrograde amnesia
- confabulation

Next question

PassMedicine

Question 35 of 117

A 46-year-old woman presents with ongoing urinary incontinence. Episodes occur when she coughs or laughs. Symptoms have become particularly noticeable since giving birth to her last child. She has no significant past medical history and takes no regular medications.

After declining initial conservative forms of treatment, she is offered medication to help control the symptoms.

What is the mechanism of action of this medication?

Activation of beta-3 receptors	5%
Inhibition of muscarinic acetylcholine receptors	47%
Inhibition of serotonin and noradrenaline reuptake	35%
Selective inhibition of noradrenaline reuptake	6%
Selective inhibition of serotonin reuptake	6%

Duloxetine mechanism of action = serotonin and noradrenaline reuptake inhibitor

Important for me Less important

This patient is experiencing stress incontinence, characterised by episodes of uncontrollable voiding when laughing or coughing. Pelvic floor muscle training is typically tried first, and surgical procedures may be offered. However, if a patient declines these interventions, duloxetine may be offered. This **inhibits serotonin and noradrenaline reuptake**. It increases the synaptic concentration of serotonin and noradrenaline within the pudendal nerve, leading to increased stimulation of muscle tissue in the urethral sphincter.

Inhibition of muscarinic acetylcholine receptors is incorrect. An example is oxybutynin. This is instead used to manage urge incontinence, which would present with uncontrollable leakage of urine following a sudden unexpected urge, rather than following laughing or coughing.

Activation of beta-3 receptors is incorrect - this refers to mirabegron. Like antimuscarinics, it is used for urge incontinence rather than stress incontinence.

Selective inhibition of noradrenaline reuptake is incorrect. Examples of drugs using this mechanism include atomoxetine and reboxetine. These are not routinely used in the management of urinary incontinence and are primarily used as antidepressants.

Selective inhibition of serotonin reuptake is incorrect. Examples of this class include fluoxetine and sertraline. These are not routinely used in the management of urinary incontinence.

Discuss (1) Improve

Next question

Serotonin and noradrenaline reuptake inhibitors

Serotonin and noradrenaline reuptake inhibitor (SNRI's) are a class of relatively new antidepressants. Inhibiting the reuptake increases the concentrations of serotonin and noradrenaline in the synaptic cleft leading to the effects. Examples include venlafaxine and duloxetine. They are used to treat major depressive disorders, generalised anxiety disorder, social anxiety disorder and panic disorder and menopausal symptoms.

Next question

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Question 36 of 117

A 35-year-old woman attends her GP for review. She says that she feels nothing is wrong but has attended at the insistence of her husband. When questioned further, she believes that a famous football player is in love with her.

She has no other delusions, nor hallucinations, nor any other obvious thought disorder. She has no insight into her belief about this football player.

What is this condition known as?

Capgras syndrome	6%
Charles Bonnet syndrome	4%
Cotard's syndrome	4%
De Clerambault's syndrome	71%
Othello syndrome	15%

Erotomania (De Clerambault's syndrome) is the presence of a delusion that a famous is in love with them, with the absence of other psychotic symptoms

Important for me Less important

The correct answer is De Clerambault's syndrome or erotomania. This is listed in DSM-5 as a type of delusional disorder, whereby the patient has a fixed belief that another individual, usually someone famous or of high social standing, is infatuated with them. Onset is often sudden and may last for several months. The condition is relatively rare and the evidence base for treatment is limited.

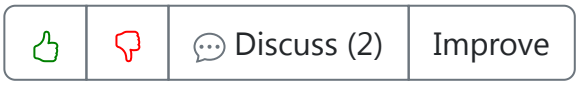
Capgras syndrome is a delusion where a patient believes that a friend, spouse or other close family member has been replaced by an identical impostor. It most commonly occurs in association with schizophrenia but has also been reported in patients with brain injury.

Charles Bonnet syndrome, also known as visual release hallucinations, is a type of visual disturbance and complex visual hallucinations in patients with partial or severe blindness. Shapes and grid-like patterns are often reported. Patients have full insight into the nature of the

hallucinations.

Cotard's syndrome is the persistent belief that the patient is dead, does not exist, is putrefying or has in some way lost their internal organs. It is again incredibly rare and so the evidence base is very limited.

Othello syndrome, named after Shakespeare's Othello, is a delusional disorder where the patient is preoccupied with the thought that their spouse is being unfaithful - without any real proof.



Next question

De Clerambault's syndrome

De Clerambault's syndrome, also known as erotomania, is a form of paranoid delusion with an amorous quality. The patient, often a single woman, believes that a famous person is in love with her.

Next question



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Score: **19.4%**

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Question 37 of 117

The sister of a 34-year-old man comes to see you in clinic as she is worried her brother may have a personality disorder. She reports her brother has always had a heightened opinion of himself and often expresses delusional thoughts regarding his potential for success as a banker believing he is capable of making millions. He does not seem perturbed by bringing others down in the process and appears pleased when he talks of others failures. She remembers he behaved similarly when they were growing up and was unsympathetic towards her when she had to resit her finals due to ill health.

What personality disorder is she describing?

Antisocial personality disorder	4%
Schizoid personality disorder	5%
Schizotypal personality disorder	4%
Borderline personality disorder	3%
Narcissistic personality disorder	85%

Narcisstic personalities lack empathy, have a sense of entitlement and take advantage of others to achieve their own need

Important for me Less important

The correct answer is narcissistic personality disorder. Whilst her brother may not actually qualify for having a personality disorder if his behaviour does not cause him personal distress or prevent him functioning socially, many of these features are seen in narcissistic behaviour. These patients have a heightened impression of self-importance and entitlement often believing they have unlimited abilities to succeed, become powerful or look beautiful. Additionally, they lack empathy and will happily take advantage of others to achieve their own need. In keeping with many personality disorders his symptoms appear to have been present since childhood and into adult life.

Patients with antisocial personality disorder also lack empathy or feelings of guilt/remorse. Similarly to narcissistic personalities they can be deceitful when wanting to achieve their own need. However, in contrast to narcissists they often fail to comply with rules or laws resulting in

criminal offences and are prone to getting into fights. As such the patient in the stem fits more closely with narcissistic personality disorder.

Patients with schizoid personality disorder tend to have a lack of interest in sexual interactions are cold and lack close friendships preferring to spend time alone. They are also indifferent to praise making this unlikely to be the correct answer.

Option 3 is incorrect. Patients with schizotypal personality disorder can have odd/eccentric beliefs or behaviour. They can also struggle to make friends and can be paranoid/suspicious as opposed to lacking empathy or having a sense of entitlement.

Option 5 is also incorrect, borderline personality disorder is characterized by emotional instability, impulsive behaviour, feelings of emptiness and recurrent attempts at self-harm.

Discuss (4) Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	**Cluster B: 'Dramatic, Emotional, or Erratic'**	**Cluster C: 'Anxious and Fearful'**
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others

- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values
- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning

- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

Textbooks

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Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3

Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3

Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2



Cluster B personality disorders (antisocial, borderline, histrionic, narcissistic)

Osmosis - YouTube 11 5

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Question 38 of 117

A 26-year-old woman who works as an accountant has recently been fired by her manager, with the reason given being missing deadlines and a reduction in quality of work. She refuted this and says that her manager has never liked her and has wanted to get rid of her since day one.

She has told her close friends and family. Even though she has been reassured by them, she believes her family but actually thinks some of her close friends from work were conspiring with her manager to get rid of her.

Her mental state examination is broadly normal, apart from a preoccupation with her manager and close friends getting rid of her. Her family state she is easily insulted and has a conspiratorial nature.

What is the most likely diagnosis?

Borderline personality disorder	10%
Paranoid personality disorder	70%
Schizoid personality disorder	10%
Schizophrenia	2%
Schizotypal personality disorder	8%

Paranoid personality disorder may be diagnosed in patients who are overly sensitive and can be unforgiving if insulted, question loyalty of those around them and are reluctant to confide in others

Important for me Less important

Paranoid personality disorder is the correct option as she has taken the firing by her manager (for what sounds like good reasons) very badly and thinks it is a conspiracy enacted by her manager and close work friends. This is a classic paranoid personality disorder manifestation and the fact her family have seen her as someone who is easily insulted and can be paranoid.

Borderline personality disorder is incorrect as this disorder manifests as someone who is not generally paranoid, but more emotionally unstable, with difficult to control tempers and unstable

relationships and recurrent suicidal ideation.

Schizoid personality disorder is incorrect as this presents with less paranoia and more with a predilection for solitary activities and a lack of interests and companions.

Schizophrenia is incorrect as the case described above has a broadly normal mental state examination, which would not be true for schizophrenia which would present with delusions, hallucinations and disordered thought.

Schizotypal personality disorder is also incorrect because this presents in someone who has paranoid ideations, but also commonly has magical beliefs, ideas of reference and generally odd behaviours and speech; not seen in the above case on mental state examination or reported by the family.

Discuss Improve

Next question

Personality disorders

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- Social isolation accompanied by a craving for social contact

Dependent

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- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
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- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
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Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

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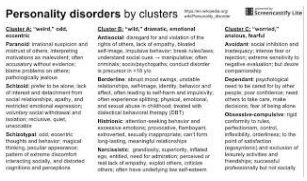
Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



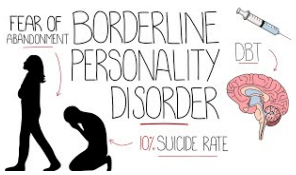
Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2

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Question 39 of 117

A 28-year-old man with known schizophrenia presents for his annual mental health review. His mental health has stabilised after the initiation of first-line treatment, however, his physical health seems to be deteriorating.

You realise that his body mass index has increased over the past 5 years from 24kg/m^2 to 32kg/m^2 and at the same time, his cholesterol and triglyceride levels have almost doubled.

What is the most likely responsible medication in this patient?

Aripiprazole	5%
Clozapine	10%
Olanzapine	75%
Quetiapine	4%
Risperidone	6%

Olanzapine has a higher risk than other atypicals for dyslipidemia and obesity

Important for me Less important

Olanzapine has a higher risk than other atypical anti-psychotics for dyslipidaemia and is a first-line agent in the treatment of schizophrenia.

All atypical antipsychotics can increase the risk of dyslipidaemia and obesity, however, there are varying degrees of risk depending on the agent.

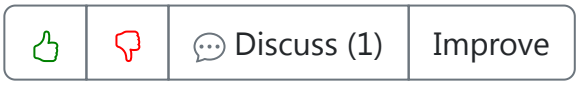
Aripiprazole is generally recognised as an atypical antipsychotic with a lower risk of causing dyslipidaemia.

Clozapine, one of the first atypical agents to be developed, does have a significant risk of dyslipidaemia. However, due to the significant risk of agranulocytosis, it is only used in patients resistant to other antipsychotic medication, not on the first presentation.

Quetiapine has a lower risk of dyslipidaemia when compared with clozapine and olanzapine,

however is seen to have a higher risk than aripiprazole and risperidone.

Risperidone is generally recognised as an atypical antipsychotic with a lower risk of causing dyslipidaemia.



Next question

Atypical antipsychotics

Atypical antipsychotics should now be used first-line in patients with schizophrenia, according to 2005 NICE guidelines. The main advantage of the atypical agents is a significant reduction in extrapyramidal side-effects.

Adverse effects of atypical antipsychotics

- weight gain
- clozapine is associated with agranulocytosis (see below)
- hyperprolactinaemia

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Examples of atypical antipsychotics

- clozapine
- olanzapine: higher risk of dyslipidemia and obesity
- risperidone
- quetiapine
- amisulpride
- aripiprazole: generally good side-effect profile, particularly for prolactin elevation

Next question



Textbooks

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Links

NICE 3 0

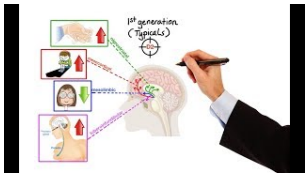
2014 Schizophrenia guidelines

BNF 1 1

Clozapine

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Media



Antipsychotics

Speed Pharmacology - YouTube 31 1

Report broken media

Score: **17.9%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗

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Question 40 of 117

A 24-year-old male is admitted to the Emergency Department complaining of severe abdominal pain. On examination he is shivering and rolling around the trolley. He has previously been investigated for abdominal pain and no cause has been found. He states that unless he is given morphine for the pain he will kill himself. This is an example of:

Hypochondrial disorder	4%
Conversion disorder	3%
Malingering	66%
Munchausen's syndrome	15%
Somatisation disorder	13%

Lying or exaggerating for financial gain is malingering, for example someone who fakes whiplash after a road traffic accident for an insurance payment

Important for me Less important

This is difficult as the patient may well be an opiate abuser who is withdrawing. However, given the above options the most appropriate term to use is malingering as the patient is reporting symptoms with the deliberate intention of getting morphine

Discuss (3) Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder

- multiple physical SYMPTOMS present for at least 2 years

- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Functional neurological disorder (conversion disorder)

- typically involves loss of motor or sensory function
- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)
- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Dissociative disorder

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor
- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Next question

Textbooks

High-yield textbook

Extended textbook

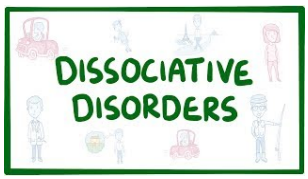
Links

Royal College of Physicians 5 2

2013 Functional neurological symptoms

Report broken link

Media



Dissociative disorders

Osmosis - YouTube 19 1

Factitious disorder

Osmosis - YouTube 9 1



Somatic symptom disorder

Osmosis - YouTube 8 1

Report broken media

Score: **17.5%**

PassMedicine

Question 41 of 117

A 52-year-old man is brought into the emergency department having attempted to take his own life. He was found at home with empty packets of paracetamol by his side. He is still conscious. A history is taken from him to assess his risk of further attempts.

Which of the following is considered to be the strongest risk factor for successful suicide?

Being a female	5%
Being married	2%
Having five children	1%
Addiction to opiates	78%
Having never seen a General Practitioner	14%

A male with a history of alcohol or drug abuse and deliberate self harm should be considered to be at high risk of suicide

Important for me Less important

This question requires you to recall the major risk factors for suicide.

Being a female - This is not the most appropriate answer given the options available. In fact, being male is one of the most significant risk factors for suicide.

Being married - This is not the most appropriate answer given the options available. Having family support is an important protective factor for suicide.

Having five children - This is not the most appropriate answer given the options available. Having children at home is thought to be a protective factor.

Addiction to opiates - This is correct. Alcohol or drug misuse is one of the major risk factors for suicide.

Having never seen a General Practitioner - This is not the most appropriate answer given the

options available. Having a chronic mental or physical condition is however a risk factor for suicide.

Discuss (6) Improve

Next question

Suicide: risk factors

The risk stratification of psychiatric patients into 'high', 'medium' or 'low risk' is common in clinical practice. Questions based on a patient's suicide risk are therefore often seen. However, it should be noted that there is a paucity of evidence addressing the positive predictive value of individual risk factors. An interesting review in the BMJ (BMJ 2017;359:j4627) concluded that 'there is no evidence that these assessments can usefully guide decision making' and noted that 50% of suicides occur in patients deemed 'low risk'.

Whilst the evidence base is relatively weak, there are a number of factors shown to be associated with an increased risk of suicide

- male sex (hazard ratio (HR) approximately 2.0)
- history of deliberate self-harm (HR 1.7)
- alcohol or drug misuse (HR 1.6)
- history of mental illness
  - depression
  - schizophrenia: NICE estimates that 10% of people with schizophrenia will complete suicide
- history of chronic disease
- advancing age
- unemployment or social isolation/living alone
- being unmarried, divorced or widowed

If a patient has actually attempted suicide, there are a number of factors associated with an increased risk of completed suicide at a future date:

- efforts to avoid discovery
- planning
- leaving a written note
- final acts such as sorting out finances
- violent method

Protective factors

There are, of course, factors which reduce the risk of a patient committing suicide. These include

- family support
- having children at home
- religious belief

Next question

Textbooks

High-yield textbook

Extended textbook

Score: **17.1%**

1	✗
2	✗
3	✗
4	✗
5	✗
6	✗
7	✓
8	✗
9	✗
10	✗

PassMedicine

Question 42 of 117

A 54-year-old man presents with a variety of physical symptoms that have been present for the past 9 years. Numerous investigations and review by a variety of specialties have indicated no organic basis for his symptoms. This is an example of:

Munchausen's syndrome	6%
Hypochondrial disorder	12%
Dissociative disorder	1%
Somatisation disorder	77%
Conversion disorder	4%

Unexplained symptoms

- **S**omatisation = **S**ymptoms
- hypo**C**hondria = **C**ancer

Important for me Less important

Somatisation disorder is the correct answer as the patient is concerned about persistent, unexplained symptoms rather than an underlying diagnosis such as cancer (hypochondrial disorder). Munchausen's syndrome describes the intentional production of symptoms, for example self poisoning

Discuss (3) Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder

- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Functional neurological disorder (conversion disorder)

- typically involves loss of motor or sensory function
- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)
- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Dissociative disorder

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor
- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Next question

Textbooks

High-yield textbook

Extended textbook

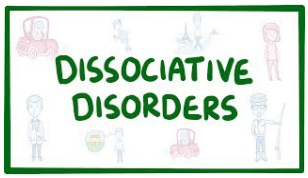
Links

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2013 Functional neurological symptoms

Report broken link

Media



Dissociative disorders

Osmosis - YouTube 19 1

Factitious disorder

Osmosis - YouTube 9 1



Somatic symptom disorder

Osmosis - YouTube 8 1

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PassMedicine

Question 43 of 117

You review a 45-year-old man with a long history of bipolar disorder. According to NICE and National Patient Safety Agency (NPSA) guidelines, how often should lithium levels be checked once a stable dose has been achieved?

Every month	12%
Every 2 months	7%
Every 3 months	56%
Every 4 months	3%
Every 6 months	22%

Lithium levels should be checked every 3 months once a stable dose has been achieved

Important for me Less important

The correct answer is **Every 3 months**. According to NICE guidelines, once a stable dose of lithium has been achieved in a patient with bipolar disorder, serum lithium levels should be checked every 3 months. This is to ensure that the levels remain within the therapeutic range (0.6-1.0 mmol/L for long-term maintenance) and prevent toxicity.

The option **Every month** is incorrect because it suggests more frequent monitoring than necessary according to NICE guidelines. Frequent monitoring may cause unnecessary discomfort and inconvenience to the patient without significantly improving safety or efficacy.

Every 2 months is also incorrect as it still implies more frequent testing than recommended. While close monitoring may be necessary in certain situations such as changes in concurrent medication, renal function or hydration status, it's not required for routine management.

The suggestion of checking **Every 4 months** is not correct either as this would extend the interval between checks beyond what is recommended by NICE guidelines. This could potentially allow toxic levels to build up if the patient's absorption rate increases or elimination rate decreases for any reason.

Lastly, **Every 6 months** is also incorrect as it greatly exceeds the recommended time frame for

checks. This could put patients at risk of experiencing side effects from lithium toxicity before they are detected through routine screening.

Discuss (4) Improve

Next question

Lithium

Lithium is mood stabilising drug used most commonly prophylactically in bipolar disorder but also as an adjunct in refractory depression. It has a very narrow therapeutic range (0.4-1.0 mmol/L) and a long plasma half-life being excreted primarily by the kidneys.

Mechanism of action - not fully understood, two theories:

- interferes with inositol triphosphate formation
- interferes with cAMP formation

Adverse effects

- nausea/vomiting, diarrhoea
- fine tremor
- nephrotoxicity: polyuria, secondary to nephrogenic diabetes insipidus
- thyroid enlargement, may lead to hypothyroidism
- ECG: T wave flattening/inversion
- weight gain
- idiopathic intracranial hypertension
- leucocytosis
- hyperparathyroidism and resultant hypercalcaemia

Monitoring of patients on lithium therapy

- inadequate monitoring of patients taking lithium is common - NICE and the National Patient Safety Agency (NPSA) have issued guidance to try and address this. As a result it is often an exam hot topic
- when checking lithium levels, the sample should be taken 12 hours post-dose
- after starting lithium levels should be performed weekly and after each dose change until concentrations are stable
- once established, lithium blood level should 'normally' be checked every 3 months
- after a change in dose, lithium levels should be taken a week later and weekly until the levels are stable.
- thyroid and renal function should be checked every 6 months

- patients should be issued with an information booklet, alert card and record book

Next question

Textbooks

High-yield textbook

Extended textbook

Links

BNF

Lithium

5 4

Report broken link

Score: **20.9%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗

PassMedicine

Question 44 of 117

Olanzapine is known to block D2 dopamine receptors. What other type of receptor does it mainly act on?

Alpha-adrenoceptors	5%
Acetylcholine receptors	10%
Serotonin receptors	49%
D1 dopamine receptors	18%
H1 histamine receptors	18%

Olanzapine, like other atypical antipsychotics, is known to block serotonin receptors (especially the 5-HT2 subtype) as well as D2 dopamine receptors

Discuss (3) Improve

Next question

Atypical antipsychotics

Atypical antipsychotics should now be used first-line in patients with schizophrenia, according to 2005 NICE guidelines. The main advantage of the atypical agents is a significant reduction in extrapyramidal side-effects.

Adverse effects of atypical antipsychotics

- weight gain
- clozapine is associated with agranulocytosis (see below)
- hyperprolactinaemia

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke

- increased risk of venous thromboembolism

Examples of atypical antipsychotics

- clozapine
- olanzapine: higher risk of dyslipidemia and obesity
- risperidone
- quetiapine
- amisulpride
- aripiprazole: generally good side-effect profile, particularly for prolactin elevation

Next question

Textbooks

High-yield textbook

Extended textbook

Links

NICE 3 0

2014 Schizophrenia guidelines

BNF 1 1

Clozapine

Report broken link

Media

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Question 45 of 117

The risk of developing schizophrenia if one monozygotic twin is affected is approximately:

10%	6%
20%	13%
50%	64%
75%	7%
>95%	9%

The correct answer is **50%**. This is because the concordance rate for schizophrenia in monozygotic twins, who share 100% of their genetic material, is around 50%. This suggests that while genetics play a significant role in the development of schizophrenia, they are not the only factor involved. Environmental factors and other non-genetic influences also contribute to the risk of developing this condition.

The option **10%** is incorrect. This percentage represents a much lower risk than what is observed in monozygotic twins. It's closer to the risk seen in dizygotic (fraternal) twins or siblings, who share about 50% of their genetic material.

The option **20%** is also incorrect. Although it's higher than the risk for dizygotic twins or siblings, it's still significantly lower than the risk for monozygotic twins. This figure may represent the estimated heritability of schizophrenia from population studies.

The option **75%** overestimates the genetic influence on schizophrenia. While there's a strong genetic component to this disorder, environmental factors are also crucially important and this high figure doesn't account for their impact.

Lastly, the option of **>95%** greatly overstates the role of genetics in developing schizophrenia. If genetics were nearly entirely responsible for this disorder, we would expect virtually all monozygotic co-twins of individuals with schizophrenia to also have the condition - which isn't what research has shown.

Discuss (2) | Improve

Next question

Schizophrenia: epidemiology

The strongest risk factor for developing a psychotic disorder (including schizophrenia) is family history. Having a parent with schizophrenia leads to a relative risk (RR) of 7.5.

Risk of developing schizophrenia

- monozygotic twin has schizophrenia = 50%
- parent has schizophrenia = 10-15%
- sibling has schizophrenia = 10%
- no relatives with schizophrenia = 1%

Other selected risk factors for psychotic disorders include:

- Black Caribbean ethnicity - RR 5.4
- Migration - RR 2.9
- Urban environment- RR 2.4
- Cannabis use - RR 1.4

Next question

Textbooks

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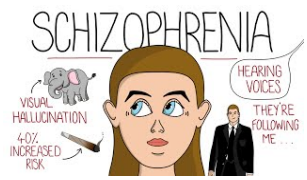
NICE

2 0

2014 Schizophrenia guidelines

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Media



Schizophrenia

Rhesus Medicine - YouTube 2 0



Schizophrenia

Osmosis - YouTube 5 2

Report broken media

Score: **20%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗
10 ✗
11 ✗
12 ✗

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Question 46 of 117

A 19-year-old woman presents to the Emergency department having taken an overdose of 40x500mg paracetamol tablets and 400ml of vodka. She took the overdose because her boyfriend is going away for 2 weeks on a course and she fears abandonment. This is her 4th attendance with an overdose over the past 3 years. She is also known to the police after an episode of reckless driving / road rage. On arrival in the unit she is tearful and upset, and tells you she did it because her boyfriend is leaving her. Vital signs and general physical examination are normal apart from evidence of cutting her arms. She is given activated charcoal. Which of the following is the most likely diagnosis?

Bipolar disorder	4%
Anti-social personality disorder	7%
Borderline personality disorder	82%
Endogenous depression	5%
Drug induced psychosis	1%

Borderline personality disorder is marked out by instability in moods, behaviour and relationships.

Diagnosis is confirmed by the presence of at least 5 of the following symptoms;

1) Extreme reactionsincluding panic, depression, rage, or frantic actionsto abandonment, whether real or perceived

2) A pattern of intense and stormy relationships with family, friends, and loved ones, often veering from extreme closeness and love to extreme dislike or anger

3) Distorted and unstable self-image or sense of self, which can result in sudden changes in feelings, opinions, values, or plans and goals for the future (such as school or career choices)

4) Impulsive and often dangerous behaviours, such as spending sprees, unsafe sex, substance abuse, reckless driving, and binge eating

5) Recurring suicidal behaviours or threats or self-harming behaviour, such as cutting
Intense and highly changeable moods, with each episode lasting from a few hours to a few days

6) Chronic feelings of emptiness and/or boredom

7) Inappropriate, intense anger or problems controlling anger

8) Having stress-related paranoid thoughts or severe dissociative symptoms, such as feeling cut off from oneself, observing oneself from outside the body, or losing touch with reality.

There are no features consistent with endogenous depression, such as early morning wakening or loss of appetite, and no features consistent with hypomania such as pressure of speech, flight of ideas, or over exuberant behaviour. We are given no indication of drug abuse which may indicate drug induced psychosis. Anti-social personality disorder is characterised by a failure to conform to social norms, and repeated law breaking. There is consistent irresponsibility, impulsivity and disregard for both their own safety and that of others.

Discuss (3) Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	Cluster B: 'Dramatic, Emotional, or Erratic'	Cluster C: 'Anxious and Fearful'
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others
- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values

- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning
- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

Textbooks

High-yield textbook

Extended textbook

Media



Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



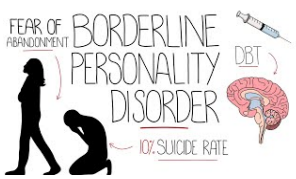
Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



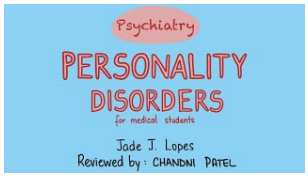
Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2



Cluster B personality disorders (antisocial, borderline, histrionic, narcissistic)

Osmosis - YouTube 11 5



Personality Disorders and DSH

MedFlix - YouTube 2 6

Report broken media

Score: **19.6%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗
10 ✗
11 ✗
12 ✗
13 ✗
14 ✗
15 ✗

PassMedicine

Question 47 of 117

A 32-year-old woman is brought to the Emergency department by the police. She was found preaching outside the local supermarket, telling people that she is god's disciple and has been sent to prevent them from wasting money. It transpires that she has also spent up to her limit on her bank card. She began treatment with fluoxetine some 3 weeks ago for reactive depression after splitting from her husband. A limited physical examination due to poor compliance is unremarkable, as is a routine blood screen.

Which of the following is the most likely diagnosis?

Psychotic depression	24%
Munchausen's syndrome	4%
Schizophrenia	13%
Viral encephalitis	0%
Mania	58%

Key features here include clear evidence of delusions of grandeur, coupled with starting treatment for fluoxetine some 3 weeks ago. Taken together these factors suggest possible mania. it is most likely to be related to selective serotonin reuptake inhibitor prescription for her depression.

Psychotic depression is unlikely given there are no delusions related to illness, loss of self-worth or other features usually expected. Schizophrenia is also unlikely given the absence of features such as auditory hallucinations or delusions of reference. Rather than being associated with agitation and hyperactivity, drowsiness and memory loss are more common features of viral encephalitis. The proximity to fluoxetine prescription, and the fact features of her illness fit so well with mania, make Munchausen's syndrome unlikely.

Discuss (7) | Improve

Next question

Hypomania vs. mania

Mania	Hypomania
• Lasts for at least 7 days - Causes severe functional impairment in social and work setting • May require hospitalization due to risk of harm to self or others • May present with **psychotic symptoms**	• A lesser version of mania • Lasts for < 7 days, typically 3-4 days. Can be high functioning and does not impair functional capacity in social or work setting • Unlikely to require hospitalization • Does not exhibit any psychotic symptoms

Therefore, the length of symptoms, severity and presence of psychotic symptoms (e.g. delusions of grandeur, auditory hallucinations) helps differentiates mania from hypomania.

The following symptoms are common to both hypomania and mania

Mood
- predominately elevated
- irritable

Speech and thought
- pressured
- flight of ideas: characterised by rapid speech with frequent changes in topic based on associations, distractions or word play
- poor attention

Behaviour
- insomnia
- loss of inhibitions: sexual promiscuity, overspending, risk-taking
- increased appetite

Next question

PassMedicine

Question 48 of 117

A man is admitted from the angiography suite after the cardiologist discovered severe triple vessel disease. He awaits transfer to a tertiary hospital for a coronary artery bypass graft. Around 48 hours into his admission you are called to see him as he has become confused, sweaty, tremulous, and agitated.

His observations show a pyrexia at 37.9ºC, heart rate of 105 bpm, and blood pressure 175/98mmHg.

You review his record and note a history of asthma, variceal bleed, and cirrhosis secondary to alcohol excess.

Given the likely diagnosis, what would be the most appropriate immediate intervention?

CT head	4%
Chlordiazepoxide	78%
IV antibiotics	3%
Intravenous hydration	5%
Pabrinex	9%

Chlordiazepoxide or diazepam are used in the treatment of delirium tremens/alcohol withdrawal

Important for me Less important

Alcohol withdrawal usually presents within hours to days of alcohol cessation. Symptoms include agitation, confusion, autonomic dysfunction (e.g. high blood pressure, sweating and pyrexia, raised heart rate), hallucinations, and tremors.

Chlordiazepoxide is the correct answer. Chlordiazepoxide, diazepam, and lorazepam are used to treat alcohol withdrawal.

IV antibiotics are not the best answer here. Although confusion, sweating, and agitation can be signs of potential infection when we take into account the alcohol history for this patient the most

likely diagnosis is delirium tremens as a result of alcohol withdrawal. If there were any concerns regarding infection it would not be unreasonable to give antibiotics, but this would not treat alcohol withdrawal. The blood pressure is high, rather than low as is often the case in infection, which is a hint.

Intravenous hydration is important if patients are diaphoretic with high insensible fluid losses. In this case, it is not the best answer as it would not treat the main problem which is alcohol withdrawal.

Pabrinex does have a role in the treatment of alcohol withdrawal in that it can help prevent the development of Wernicke's encephalopathy (manifested by confusion, ataxia, and ophthalmoplegia). It does not, however, have any effect on the symptoms of delirium tremens and does not reduce the risk of alcohol withdrawal-related seizures. Chlordiazepoxide is therefore the most correct answer.

CT head is not the best answer here. In this case, we have an agitated patient and this can be an indication for a CT head to exclude an intracranial cause. There is no history of trauma, no mention of any focal neurological finding, and there is a good alternative explanation for the presentation. CT head would therefore not be the best immediate intervention.

Discuss (2) Improve

Next question

Alcohol withdrawal

Mechanism

- chronic alcohol consumption enhances GABA mediated inhibition in the CNS (similar to benzodiazepines) and inhibits NMDA-type glutamate receptors
- alcohol withdrawal is thought to be lead to the opposite (decreased inhibitory GABA and increased NMDA glutamate transmission)

Features

- symptoms start at 6-12 hours: tremor, sweating, tachycardia, anxiety
- peak incidence of seizures at 36 hours
- peak incidence of delirium tremens is at 48-72 hours: coarse tremor, confusion, delusions, auditory and visual hallucinations, fever, tachycardia

Management

- patients with a history of complex withdrawals from alcohol (i.e. delirium tremens, seizures, blackouts) should be admitted to hospital for monitoring until withdrawals stabilised
- first-line: long-acting benzodiazepines e.g. chlordiazepoxide or diazepam. Lorazepam may be preferable in patients with hepatic failure. Typically given as part of a reducing dose protocol
- carbamazepine also effective in treatment of alcohol withdrawal
- phenytoin is said not to be as effective in the treatment of alcohol withdrawal seizures

Next question

Textbooks

High-yield textbook

Extended textbook

Score: **18.8%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗
10 ✗
11 ✗

PassMedicine

Question 49 of 117

A 35-year-old woman is convinced to attend her general practitioner by her mother. Her mother is concerned that her daughter is entirely convinced that a famous actor is in love with her, despite having never met or communicated with them.

On examination, the woman appears well. There is no evidence of hallucinations, confusion or abnormal speech patterns. Apart from the unshakeable belief that the famous actor is in love with her, the mental status examination is normal.

What is the correct description of this disorder?

Capgras syndrome	6%
De Clerambault's syndrome	75%
De Fregoli syndrome	7%
Ekbom syndrome	1%
Othello syndrome	11%

Erotomania (De Clerambault's syndrome) is the presence of a delusion that a famous is in love with them, with the absence of other psychotic symptoms

Important for me Less important

De Clerambault's syndrome is correct. This is the presence of a delusion that a famous person is in love with them, with the absence of other psychotic symptoms as is the case, here.

Capgras syndrome is incorrect. This is the delusion that a person closely related to the patient has been replaced by an impostor.

De Fregoli syndrome is incorrect. This is the delusion of identifying a familiar person in various people they encounter.

Othello syndrome is incorrect. This is a delusion of sexual infidelity on the part of a sexual partner.

Ekbom syndrome is incorrect. This is delusional parasitosis and describes the delusion of infestation.

Discuss (4) | Improve

Next question

De Clerambault's syndrome

De Clerambault's syndrome, also known as erotomania, is a form of paranoid delusion with an amorous quality. The patient, often a single woman, believes that a famous person is in love with her.

Next question

Textbooks

High-yield textbook

Extended textbook

Score: **20.4%**

1 ✗
2 ✗
3 ✗
4 ✗

PassMedicine

Question 50 of 117

An 80-year-old man presents with recurrent episodes of hallucinations. He describes often seeing faces smaller than normal or other objects out of proportion. He finds these episodes distressing although he says he knows they're not real. His past medical history includes macular degeneration and an episode of depression 20 years ago following the death of his wife. Neurological examination is unremarkable. What is the most likely diagnosis?

Schizophrenia	2%
Charles-Bonnet syndrome	92%
Psychotic depression	4%
Cerebral tumour	1%
Alzheimer's disease	1%

The most likely diagnosis in this case is **Charles-Bonnet syndrome**. This condition is characterized by complex visual hallucinations in individuals with visual impairment, such as macular degeneration, which the patient has. The hallucinations are often of faces or objects that are smaller or larger than normal. Importantly, patients with Charles-Bonnet syndrome maintain insight into the unreal nature of their hallucinations and do not have other cognitive or psychiatric symptoms.

Schizophrenia is an unlikely diagnosis in this case because the patient's age and presentation do not fit the typical pattern for schizophrenia. Schizophrenia usually presents earlier in life and involves a range of positive and negative symptoms beyond just hallucinations, such as delusions, disorganized thinking, and social withdrawal.

Psychotic depression can present with hallucinations; however, these are more commonly auditory rather than visual. Additionally, there is no indication in the patient's history that he is currently experiencing depressive symptoms. His previous episode of depression occurred 20 years ago following a significant life event (the death of his wife) and does not necessarily suggest a current depressive episode.

A **cerebral tumour** could potentially cause hallucinations; however, it would be less likely to cause recurrent episodes without any other accompanying neurological signs or symptoms. The patient's neurological examination was unremarkable, making this diagnosis less probable.

Finally, **Alzheimer's disease** is also an unlikely diagnosis given the patient's isolated symptomatology. While Alzheimer's disease can present with various neuropsychiatric symptoms including hallucinations, it would typically involve progressive cognitive decline and memory impairment as well. There is no mention of such features in this case.

In conclusion, based on the patient's age, history of macular degeneration, type of hallucination experienced (visual), and preserved insight into their unreal nature, Charles-Bonnet syndrome is the most likely diagnosis.

Discuss (1) Improve

Next question

Charles-Bonnet syndrome

Charles-Bonnet syndrome (CBS) is characterised by persistent or recurrent complex hallucinations (usually visual or auditory), occurring in clear consciousness. This is generally against a background of visual impairment (although visual impairment is not mandatory for a diagnosis). Insight is usually preserved. This must occur in the absence of any other significant neuropsychiatric disturbance.

Risk factors include:

- Advanced age
- Peripheral visual impairment
- Social isolation
- Sensory deprivation
- Early cognitive impairment

CBS is equally distributed between sexes and does not show any familial predisposition. The most common ophthalmological conditions associated with this syndrome are age-related macular degeneration, followed by glaucoma and cataract.

Well-formed complex visual hallucinations are thought to occur in 10-30 per cent of individuals with severe visual impairment. Prevalence of CBS in visually impaired people is thought to be between 11 and 15 per cent.

Around a third find the hallucinations themselves an unpleasant or disturbing experience. In a large study published in the British Journal of Ophthalmology, 88% had CBS for 2 years or more, resolving in only 25% at 9 years (thus it is not generally a transient experience).

PassMedicine

Question 51 of 117

A 21-year-old woman presents to her GP, seeking help for anxiety. She finds her office-based job stressful, especially the aspects involving discussions with colleagues and bosses, fearing criticism. Outside of work, she often finds herself worrying about what her friends think of her, and increasingly forgoes social interaction with them as a result. She mentions that she thinks quite lowly of herself and does not have much self-esteem.

What best fits her diagnosis?

Antisocial personality disorder	11%
Avoidant personality disorder	76%
Borderline personality disorder	6%
Dependent personality disorder	5%
Obsessive-compulsive personality disorder	3%

Patients with avoidant personality disorder are fearful of criticism, being unliked, rejection and ridicule

Important for me Less important

This patient's history is a classic example of **avoidant personality disorder**. These patients generally avoid occupational, or social, activities with significant interpersonal contact, due to fear of criticism/rejection. They are preoccupied with ideas that they are being criticised or rejected in social situations and have an inferior view of themselves. Typically, they isolate themselves socially but actually crave social contact.

Patients with **antisocial personality disorder** display a failure to conform to social norms with respect to lawful behaviours - repeatedly performing acts that are grounds for arrest. These patients may use deception, repeatedly lie, and show impulsiveness and a failure to plan ahead; they typically demonstrate a lack of remorse for their actions.

Borderline personality disorder, also known as emotionally unstable personality disorder, would present differently. These patients make efforts to avoid real or imagined abandonment. They often have unstable interpersonal relationships and an unstable self-image. They demonstrate

impulsivity with regards to potentially self-damaging behaviours, such as substance abuse, sexual intercourse and spending. They may also display recurrent suicidal behaviour.

Dependent personality disorder presents with difficulties making decisions about everyday decisions without excessive reassurance from others. These patients have a need for others to assume responsibility for major areas of their lives. They generally display a lack of initiative and have unrealistic fears of being left to care for themselves. They typically seek out a new relationship as soon as a previous relationship ends.

Obsessive-compulsive personality disorder, as the name suggests, presents with a preoccupation with details, rules, lists and order - to the point that the key part of the actual activity itself is gone. These patients are typically dedicated to their work and efficiency, eliminating spare time activities. They are generally unwilling to delegate work to others, unless they can be sure that the others will perform the work exactly as they wish it to be done.

Discuss (1) Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	Cluster B: 'Dramatic, Emotional, or Erratic'	Cluster C: 'Anxious and Fearful'
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends

- Reluctance to confide in others
- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values

- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning
- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

Textbooks

High-yield textbook

Extended textbook

Media



Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



Borderline Personality Disorder Explained

PassMedicine

Question 52 of 117

A 33-year-old woman presents to her GP with a several-month history of anxiety with no clear trigger which is affecting her sleep and desire to interact with others. She feels restless and agitated. She denies any episodes of panic attacks. Her medical history is otherwise unremarkable.

Which of the following would be the most appropriate option to try first?

Amitriptyline	9%
Duloxetine	9%
Propranolol	16%
Sertraline	60%
Venlafaxine	7%

SSRIs are the first-line pharmacological therapy for generalised anxiety disorder

Important for me Less important

The correct answer is sertraline. The picture being described here is that of generalised anxiety disorder, given the symptoms and chronic duration. NICE guidance recommends a selective serotonin reuptake inhibitor (SSRI) as a first-line pharmacological option for this condition. Out of the available SSRIs, NICE suggest sertraline as a preferable initial choice.

Amitriptyline is a tricyclic antidepressant and would be a second- or third-line agent if other methods failed. Generally, SSRIs and serotonin-noradrenaline reuptake inhibitors (SNRIs) are recommended prior to trying TCAs, due to their larger side effect profile.

Duloxetine is an SNRI and would be a suitable alternative if sertraline did not work. However, first-line, sertraline should be tried.

Propranolol is a beta-blocker and used as needed to control acute flare-ups of anxiety and panic attacks. This patient denies such acute episodes and so would not be as useful; propranolol should be prescribed in conjunction with an agent like sertraline, not used as monotherapy.

Venlafaxine is another SNRI, like duloxetine, and would be another suitable alternative to try if sertraline were not effective.



Next question

Generalised anxiety disorder and panic disorder

Anxiety is a common disorder that can present in multiple ways. NICE define the central feature as an 'excessive worry about a number of different events associated with heightened tension.'

Always look for a potential physical cause when considering a psychiatric diagnosis. In anxiety disorders, important alternative causes include hyperthyroidism, cardiac disease and medication-induced anxiety (NICE). Medications that may trigger anxiety include salbutamol, theophylline, corticosteroids, antidepressants and caffeine

Management of generalised anxiety disorder (GAD)

NICE suggest a step-wise approach:

- step 1: education about GAD + active monitoring
- step 2: low-intensity psychological interventions (individual non-facilitated self-help or individual guided self-help or psychoeducational groups)
- step 3: high-intensity psychological interventions (cognitive behavioural therapy or applied relaxation) or drug treatment. See drug treatment below for more information
- step 4: highly specialist input e.g. Multi agency teams

Drug treatment

- NICE suggest sertraline should be considered the first-line SSRI
- if sertraline is ineffective, offer an alternative SSRI or a serotonin-noradrenaline reuptake inhibitor (SNRI)
    - examples of SNRIs include duloxetine and venlafaxine
- If the person cannot tolerate SSRIs or SNRIs, consider offering pregabalin
- interestingly for patients under the age of 30 years NICE recommend you warn patients of the increased risk of suicidal thinking and self-harm. Weekly follow-up is recommended for the first month

Management of panic disorder

Again a stepwise approach:

- step 1: recognition and diagnosis
- step 2: treatment in primary care - see below
- step 3: review and consideration of alternative treatments
- step 4: review and referral to specialist mental health services
- step 5: care in specialist mental health services

Treatment in primary care

- NICE recommend either cognitive behavioural therapy or drug treatment
- SSRIs are first-line. If contraindicated or no response after 12 weeks then imipramine or clomipramine should be offered

Next question

Textbooks

High-yield textbook

Extended textbook

Links

NICE

1 0

2011 Generalised anxiety disorder and panic disorder guidelines

Report broken link

Media

Anxiety Disorders for Medical Students

MedFlix - YouTube

PassMedicine

Question 53 of 117

A 29-year-old woman is reviewed by her psychiatrist. She has been on citalopram for 4 years for depression.

The patient reports a significant improvement in her symptoms recently having started a new job and regular participation in cognitive behaviour therapy. As a result, she wishes to stop taking her medications. You advise her that to discontinue her medication she should slowly reduce the dose over a period of time.

When should the patient be advised to start reducing the dose of citalopram?

2 weeks following remission of symptoms	3%
3 months following remission of symptoms	4%
4 weeks following remission of symptoms	18%
6 months following remission of symptoms	72%
Immediately	3%

Antidepressants should be continued for at least 6 months after remission of symptoms to decrease risk of relapse

Important for me Less important

Selective serotonin reuptake inhibitors (SSRIs) such as citalopram are considered first-line treatment for depression. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least **6 months after remission** before slowly reducing and then discontinuing the medication. This is to prevent the risk of relapse of symptoms.

A significant number of patients experience a relapse of their depressive symptoms following the discontinuation of antidepressants. Discontinuing antidepressants sooner than the recommended 6 months following symptom remission has been associated with an increased risk of relapse and is therefore not advised.

Discuss (2) Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

Next question

Textbooks

High-yield textbook

Extended textbook

Links

NICE

2022 Depression in adults: treatment and management

2 6

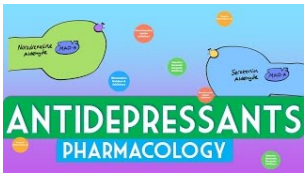
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Media



Antidepressants

Speed Pharmacology - YouTube 30 2



Antidepressants Pharmacology

Soton Brain Hub - YouTube 9 3

Report broken media

Score: **20.8%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗

PassMedicine

Question 54 of 117

A 54-year-old man is brought to the emergency department by ambulance, after being found confused by members of the public for the fifth time in the past month. Upon review, he tells you that he came here by bicycle after spending the afternoon with his friends doing shopping, and then later tells you he spent today in the pub with his new dog. He smells strongly of alcohol and you notice a near-empty bottle of unlabelled spirit with him.

On examination, he has an ataxic gait, dysdiadochokinesia and horizontal nystagmus.

When you go back later to see him, he has forgotten your previous interaction.

Which of the following explains his signs and symptoms?

Cerebellar ataxia	3%
Ethanol intoxication	5%
Korsakoff's syndrome	63%
Methanol toxicity	2%
Wernicke's encephalopathy	28%

Korsakoff's syndrome is a complication of Wernicke's encephalopathy. It's features include: anterograde amnesia, retrograde amnesia, and confabulation

Important for me Less important

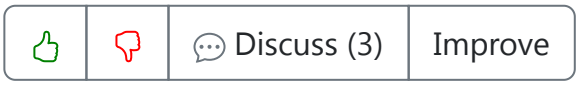
This man has presented to the emergency department with cerebellar signs, eye signs, amnesia and is changing his story about recent events. He is also carrying around a tell-tale bottle of alcohol. Wernicke's encephalopathy alone would account for most, though not all of his symptoms. The classic triad for this is ophthalmoplegia (often a lateral rectus palsy and/or horizontal nystagmus), confusion and ataxia (though any cerebellar signs can be present). However, this man also has features that make Korsakoff's syndrome the unifying diagnosis: anterograde amnesia (he forgets your interaction) and confabulation (he makes up two different stories about his day).

Whilst cerebellar ataxia, caused by alcohol use, haemorrhage, tumour, infection or other cause,

accounts for some of this man's symptoms, it does not account for the specific symptoms that point to Korsakoff's disease.

Alcohol intoxication might produce unsteadiness and confusion or changing stories, but the specific neurological signs point away from this.

Methanol toxicity is a possible cause of ataxia, poor coordination and confusion. It may even contaminate unregulated alcohol products. However, it would likely also cause vomiting, abdominal pain, decreased consciousness and can progress to respiratory failure.



Next question

Korsakoff's syndrome

Overview

- marked memory disorder often seen in alcoholics
- thiamine deficiency causes damage and haemorrhage to the mammillary bodies of the hypothalamus and the medial thalamus
- in often follows on from untreated Wernicke's encephalopathy

Features

- anterograde amnesia: inability to acquire new memories
- retrograde amnesia
- confabulation

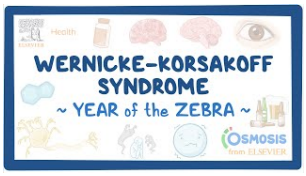
Next question

Textbooks

High-yield textbook

Extended textbook

Media



Wernicke-Korsakoff syndrome

Osmosis - YouTube 6 1



Thiamine Deficiency (Vitamin B1)

Pixorize - YouTube 2 2

Report broken media

Score: **20.4%**

1	✗
2	✗
3	✗
4	✗
5	✗
6	✗
7	✓
8	✗
9	✗
10	✗

PassMedicine

Question 55 of 117

Which class of drug have the Medicines and Healthcare products Regulatory Agency warned may be associated with an increased risk of venous thromboembolism in elderly patients?

Tricyclic antidepressants	18%
5HT3 antagonists	9%
Third generation cephalosporins	1%
Benzodiazepines	2%
Atypical antipsychotics	70%

Antipsychotics in the elderly - increased risk of stroke and VTE

Important for me Less important

The correct answer is **Atypical antipsychotics**. The Medicines and Healthcare products Regulatory Agency (MHRA) in the UK has issued a warning about an increased risk of venous thromboembolism (VTE) in elderly patients using atypical antipsychotics. These drugs, which include clozapine, risperidone, olanzapine, and quetiapine among others, are often prescribed for the management of schizophrenia and bipolar disorder. They act by blocking dopamine D2 receptors in the brain which helps to reduce psychotic symptoms. However, they can also cause hyperprolactinaemia and weight gain which may increase the risk of VTE.

Tricyclic antidepressants are not associated with an increased risk of VTE according to MHRA. These drugs work by inhibiting the reuptake of serotonin and norepinephrine into presynaptic neurons thereby increasing their concentration in the synaptic cleft and enhancing neurotransmission.

5HT3 antagonists, such as ondansetron or granisetron used mainly for nausea and vomiting, especially during chemotherapy, have not been linked with an increased risk of VTE. They work by blocking 5-HT3 receptors located peripherally on vagal nerve terminals and centrally in the chemoreceptor trigger zone of the area postrema.

Third generation cephalosporins, like ceftriaxone or ceftazidime used to treat various bacterial infections including *Pseudomonas aeruginosa*, do not pose an increased risk for VTE according to

MHRA guidelines. Their mechanism involves disrupting cell wall synthesis leading to bacterial cell death.

Lastly, **benzodiazepines**, such as diazepam or lorazepam used for anxiety disorders, sleep disorders or alcohol withdrawal symptoms, have not been associated with an elevated risk of VTE either. They enhance GABAergic neurotransmission leading to sedative, hypnotic, anxiolytic, muscle relaxant effects.

Discuss (4) Improve

Next question

Antipsychotics

Antipsychotics are a group of drugs used in the management of schizophrenia and other forms of psychosis, mania and agitation. They are usually divided into typical and atypical antipsychotics. The atypical antipsychotics were developed due to the problematic extrapyramidal side-effects which are associated with the first generation of typical antipsychotics.

	Typical antipsychotics	**Atypical antipsychotics**
Mechanism of action	Dopamine D2 receptor antagonists, blocking dopaminergic transmission in the mesolimbic pathways	Act on a variety of receptors (D2, D3, D4, 5-HT)
Adverse effects	Extrapyramidal side-effects and hyperprolactinaemia common	Extrapyramidal side-effects and hyperprolactinaemia less common Metabolic effects
Examples	Haloperidol Chlorpromazine	Clozapine Risperidone Olanzapine

The rest of this section will focus on typical antipsychotics, with atypical antipsychotics covered elsewhere.

Extrapyramidal side-effects (EPSEs)

- Parkinsonism
- acute dystonia

    - sustained muscle contraction (e.g. torticollis, oculogyric crisis)
    - may be managed with procyclidine
- akathisia (severe restlessness)
- tardive dyskinesia (late onset of choreoathetoid movements, abnormal, involuntary, may occur in 40% of patients, may be irreversible, most common is chewing and pouting of jaw)

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Other side-effects

- antimuscarinic: dry mouth, blurred vision, urinary retention, constipation
- sedation, weight gain
- raised prolactin
    - may result in galactorrhoea
    - due to inhibition of the dopaminergic tuberoinfundibular pathway
- impaired glucose tolerance
- neuroleptic malignant syndrome: pyrexia, muscle stiffness
- reduced seizure threshold (greater with atypicals)
- prolonged QT interval (particularly haloperidol)

Next question

Textbooks

High-yield textbook

Extended textbook

Links

BNF 1 0

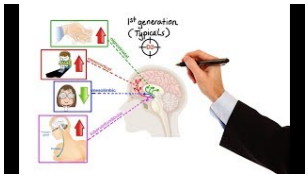
Psychoses and related disorders

Clinical Knowledge Summaries 2 1

Schizophrenia > Prescribing Information > Adverse effects

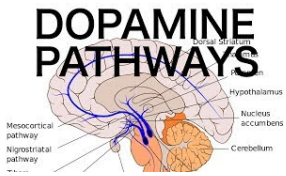
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Media



Antipsychotics

Speed Pharmacology - YouTube 38 0



Antipsychotics, Dopamine, and EPS

Dirty USMLE - YouTube 24 0



Video of patients with tardive dyskinesia

Abnormal Involuntary Movement Scale training video - YouTube 17 3

Report broken media

Score: **20%**

1 ✕

PassMedicine

Question 56 of 117

A 44-year-old man presents to the emergency department with tremors and restlessness. He is visibly anxious and pacing up and down. He admits having last had 'a drink' 8 hours ago. He also describes having taken some morphine several hours prior, but cannot quantify this.

On examination, he is anxious and sweating. Physical observations are normal except for a heart rate of 118 bpm. Pupils are equal and reactive to light. A general tremor is noted.

What is the most appropriate first-line management?

Chlordiazepoxide	74%
Lorazepam	14%
Methadone	2%
Naloxone	9%
Phenytoin	0%

Alcohol withdrawal

- symptoms: 6-12 hours
- seizures: 36 hours
- delirium tremens: 72 hours

Important for me Less important

This patient is likely experiencing alcohol withdrawal. Initial symptoms, 6-12 hours after last consumption, include the features seen here - tremor, sweating, anxiety and tachycardia. Later features include seizures and delirium tremens. Patients presenting to hospital with features of alcohol withdrawal should be treated with long-acting benzodiazepines first-line, such as **chlordiazepoxide** or diazepam.

Lorazepam is a short-acting benzodiazepine and not as preferable for this patient. It may be more suitable for patients with a history of hepatic impairment.

Methadone is an opioid agonist used in the management of withdrawal from opioid addiction.

Although patients experiencing opioid addiction may present with similar symptoms, they typically experience nausea, vomiting, diarrhoea and rhinorrhoea, which are not seen here.

Naloxone is used in the management of opioid overdose. Rather than being agitated as in this scenario, the patient would be drowsy, have pinpoint pupils and potentially respiratory depression.

Phenytoin is an anticonvulsant. It is not typically recommended for alcohol withdrawal seizures as its effectiveness for these is questionable. It would not be appropriate here.

Discuss | Improve

Next question

Alcohol withdrawal ★

Mechanism

- chronic alcohol consumption enhances GABA mediated inhibition in the CNS (similar to benzodiazepines) and inhibits NMDA-type glutamate receptors
- alcohol withdrawal is thought to be lead to the opposite (decreased inhibitory GABA and increased NMDA glutamate transmission)

Features

- symptoms start at 6-12 hours: tremor, sweating, tachycardia, anxiety
- peak incidence of seizures at 36 hours
- peak incidence of delirium tremens is at 48-72 hours: coarse tremor, confusion, delusions, auditory and visual hallucinations, fever, tachycardia

Management

- patients with a history of complex withdrawals from alcohol (i.e. delirium tremens, seizures, blackouts) should be admitted to hospital for monitoring until withdrawals stabilised
- first-line: long-acting benzodiazepines e.g. chlordiazepoxide or diazepam. Lorazepam may be preferable in patients with hepatic failure. Typically given as part of a reducing dose protocol
- carbamazepine also effective in treatment of alcohol withdrawal
- phenytoin is said not to be as effective in the treatment of alcohol withdrawal seizures

Next question

PassMedicine

Question 57 of 117

A 18-year-old sprinter who is currently preparing for a national athletics meeting asks to see the team doctor due to an unusual sensation in his legs. He describes a numb sensation below his knee. On examination the patient there is apparent sensory loss below the right knee in a non-dermatomal distribution. The team doctor suspects a non-organic cause of his symptoms. This is an example of a:

Conversion disorder	61%
Hypochondrial disorder	2%
Somatisation disorder	25%
Malingering	7%
Munchausen's syndrome	4%

Functional neurological disorder (conversion disorder) - typically involves loss of motor or sensory function

Important for me Less important

The correct answer in this scenario is a **Conversion disorder**. Conversion disorder, also known as functional neurological symptom disorder, is a psychiatric condition where psychological distress is expressed through physical symptoms. In this case, the patient's numb sensation below his knee and the sensory loss in a non-dermatomal distribution suggest that there may not be an identifiable organic cause for his symptoms. Instead, these symptoms could be manifestations of underlying psychological stress or anxiety related to his upcoming national athletics meeting.

The first incorrect option is **Hypochondrial disorder**, now referred to as Illness Anxiety Disorder. This condition involves excessive worry about having a serious illness despite having no or only mild symptoms. The person may constantly seek medical reassurance and excessively research their perceived illness. In this case, the patient does not present with excessive worry about having an illness but rather reports an unusual sensation in his legs.

Somatisation disorder is another incorrect option. This condition involves multiple unexplained physical symptoms across different body systems, causing significant distress and impairment in daily functioning. These symptoms cannot be explained by any medical condition or substance

use. The patient in this scenario presents with isolated sensory loss below the knee, which does not fit the criteria for somatisation disorder.

The next incorrect option is **Malingering**. Malingering refers to intentionally feigning or exaggerating physical or psychological symptoms for external gain (e.g., avoiding work or obtaining financial compensation). While it might be possible that the athlete could have secondary motives for presenting with these symptoms, there is no indication in the given information that he has any external gain from doing so.

Finally, **Munchausen's syndrome**, now known as Factitious Disorder Imposed on Self, is also incorrect. This psychiatric condition involves a person deliberately producing or falsifying signs and symptoms of an illness to assume the sick role and receive attention or sympathy. In this case, there is no indication that the patient is intentionally producing his symptoms for attention or sympathy.

Discuss (5) | Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder

- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Functional neurological disorder (conversion disorder)

- typically involves loss of motor or sensory function
- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)
- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Dissociative disorder

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor
- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Next question

Textbooks

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Extended textbook

Links

Royal College of Physicians

2013 Functional neurological symptoms

5 2

Report broken link

Media

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Question 58 of 117

A 58-year-old man is admitted with pneumonia. He drinks 20 units of alcohol per day. His liver function is normal.

Appropriately 12 hours into his admission he becomes unwell.

His observations are shown below:

- Respiratory rate 18 breaths/minute
- Oxygen saturations 96%
- Blood pressure 123/76 mmHg
- Heart rate 106 bpm.
- Capillary blood glucose 4.1 mmol/L

An ECG shows sinus tachycardia at a rate of 103 bpm.

On examination, he appears tremulous and sweaty and complains of feeling anxious.

What is the most appropriate management?

250ml 10% glucose IV	5%
Chlordiazepoxide regimen and regular high strength IM B vitamin replacement	78%
Regular high strength IM B vitamin replacement	2%
Stat dose of bisoprolol	1%
Stat dose of lorazepam and regular high strength IM B vitamin replacement	14%

Chlordiazepoxide or diazepam are used in the treatment of delirium tremens/alcohol withdrawal

Important for me Less important

Chlordiazepoxide regimen and regular high strength IM B vitamin replacement is correct. This patient is acutely withdrawing from alcohol. Symptoms usually begin 12 hours following

reduction/cessation of alcohol intake. This patient will be undergoing assisted alcohol withdrawal in the inpatient setting, and as such will require prophylaxis of Wernicke's encephalopathy also.

250ml 10% glucose IV is incorrect, as the patient is not hypoglycaemia.

Regular high strength IM B vitamin replacement alone is incorrect, as the patient will require a benzodiazepine regimen for alcohol withdrawal also.

Stat dose of bisoprolol is incorrect. The patient is in sinus tachycardia due to the alcohol withdrawal so bisoprolol will not treat the problem.

Stat dose of lorazepam and regular high strength IM B vitamin replacement is incorrect. Lorazepam or oxazepam are sometimes used in alcohol withdrawal where there is evidence of alcoholic liver disease but this patient has documented normal LFTs. Also, a stat dose would not be sufficient to treat his alcohol withdrawal and he will require a weaning regimen.

Discuss (2) Improve

Next question

Alcohol withdrawal

Mechanism

- chronic alcohol consumption enhances GABA mediated inhibition in the CNS (similar to benzodiazepines) and inhibits NMDA-type glutamate receptors
- alcohol withdrawal is thought to be lead to the opposite (decreased inhibitory GABA and increased NMDA glutamate transmission)

Features

- symptoms start at 6-12 hours: tremor, sweating, tachycardia, anxiety
- peak incidence of seizures at 36 hours
- peak incidence of delirium tremens is at 48-72 hours: coarse tremor, confusion, delusions, auditory and visual hallucinations, fever, tachycardia

Management

- patients with a history of complex withdrawals from alcohol (i.e. delirium tremens, seizures, blackouts) should be admitted to hospital for monitoring until withdrawals stabilised
- first-line: long-acting benzodiazepines e.g. chlordiazepoxide or diazepam. Lorazepam may be preferable in patients with hepatic failure. Typically given as part of a reducing dose protocol

- carbamazepine also effective in treatment of alcohol withdrawal
- phenytoin is said not to be as effective in the treatment of alcohol withdrawal seizures

Next question

Textbooks

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Score: **20.7%**

1	✗
2	✗
3	✗
4	✗
5	✗
6	✗
7	✓
8	✗
9	✗
10	✗
11	✗
12	✗
13	✗
14	✗
15	✗

PassMedicine

Question 59 of 117

Carol is a 57-year-old lady who is under a section 3 at a an inpatient psychiatric hospital. She has stopped eating or drinking as she believes she is dead and does not require food anymore. Which syndrome is characterised by a person believing they are dead or non-existent?

Cotard syndrome	81%
Capgras syndrome	8%
Couvade syndrome	4%
De Clerambault's syndrome	3%
Othello syndrome	4%

Cotard syndrome is characterised by a person believing they are dead or non-existent

Important for me Less important

Cotard syndrome is characterised by a person believing they are dead or non-existent. It tends to be related to depression.

Capgras syndrome is characterised by a person believing their friend or relative had been replaced by an exact double.

Couvade syndrome is also known as 'sympathetic pregnancy'. It affects fathers, particularly during the first and third trimesters of pregnancy, who suffer the somatic features of pregnancy.

De Clerambault's syndrome is characterised by a person believing that another individual (often a celebrity) is deeply in love with them. It typically affects females.

Othello syndrome is when the patient believes their partner is cheating on them. They may be threatening or stalk their partner. This seems to affect males more than females.

Discuss (9) Improve

Next question

Cotard syndrome

Cotard syndrome is a rare mental disorder where the affected patient believes that they (or in some cases just a part of their body) is either dead or non-existent. This delusion is often difficult to treat and can result in significant problems due to patients stopping eating or drinking as they deem it not necessary.

Cotard syndrome is associated with severe depression and psychotic disorders.

Next question

Textbooks

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Score: **20.3%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗

PassMedicine

Question 60 of 117

A 74-year-old man is seen with his wife, who states that the patient has not been himself in the last six weeks. He is frequently agitated over minor issues, sleeps a lot throughout the day, and lost interest in his usual hobbies. The patient reports feeling more forgetful recently. Neurological examination is normal. His Montreal Cognitive Assessment (MoCA) score is 24/30. When asked to subtract numbers or describe similarities between objects, he frequently answers, 'I don't know'.

What is the most likely diagnosis?

Alzheimer's disease	13%
Dementia with lewy body	8%
Depressive disorder	76%
Normal pressure hydrocephalus	2%
Parkinson's disease	1%

Elderly patients with depression are less likely to complain of low mood and instead may present with health anxiety, agitation and sleep disturbance

Important for me Less important

Depression presents differently in the elderly. The history of agitation, anhedonia, and sleep disturbance with a relatively high MOCA score points towards a diagnosis of depression rather than dementia. They engage poorly with the test, as compared to patients with Alzheimer's dementia who make an attempt but are not able to answer correctly.

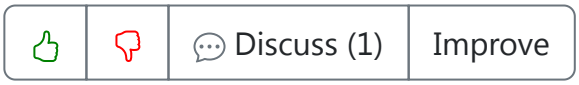
Patients with mild **Alzheimer's dementia** score 16 on average on the MOCA. An objective finding of poor short-term memory is more common in dementia, whereas a subjective complaint of poor memory is more common in depression.

Lewy body dementia more commonly presents with cognitive impairment, gait disorders and visual hallucinations. The normal neurological findings here makes this diagnosis unlikely.

Normal pressure hydrocephalus is characterized by the triad of cognitive impairment, gait disorders and urinary incontinence. Although the patient has been more forgetful, the

neurological examination is normal.

Parkinson's disease presents with rigidity, bradykinesia and tremor, none of which is seen here.



Next question

Depression in older people

Older patients are less likely to complain of depressed mood

Features

- physical complaints (e.g. hypochondriasis)
- agitation
- insomnia

Management

- SSRIs are first line (adverse side-effect profile of TCAs more of an issue in the elderly)

Next question



Textbooks

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PassMedicine

Question 61 of 117

A 39-year-old patient is taking phenelzine, a monoamine oxidase inhibitor, for the treatment of depression. Which one of the following foods can the patient safely eat?

Bovril	7%
Cheese	11%
Oxo	8%
Eggs	53%
Broad beans	21%

The correct answer is **Eggs**. Phenelzine is a monoamine oxidase inhibitor (MAOI) used in the treatment of depression. One of the key considerations when prescribing MAOIs is their potential to interact with tyramine, a compound found in certain foods, leading to a hypertensive crisis. Tyramine is usually broken down by monoamine oxidase in the gut; however, this process is inhibited by MAOIs like phenelzine. Foods that are high in tyramine include aged cheeses, fermented or cured meats, and certain vegetables like broad beans. Eggs are considered safe as they have low levels of tyramine.

The first incorrect answer is **Bovril**. Bovril is a meat extract product often used as a flavouring for soups and stews. It contains high levels of tyramine and therefore can cause a hypertensive crisis if consumed by someone taking an MAOI.

Next, **Cheese** is another incorrect option. Cheese, especially aged cheese, has high levels of tyramine. The longer a cheese has been aged, the higher its tyramine content will be.

Oxo, similar to Bovril, is also incorrect because it's another type of meat extract product that can contain high amounts of tyramine.

Finally, **Broad beans** should also be avoided while on phenelzine due to their high tyramine content.

Discuss (7) | Improve

Next question

Monoamine oxidase inhibitors

Overview

- serotonin and noradrenaline are metabolised by monoamine oxidase in the presynaptic cell

Non-selective monoamine oxidase inhibitors

- e.g. tranylcypromine, phenelzine
- used in the treatment of atypical depression (e.g. hyperphagia) and other psychiatric disorder
- not used frequently due to side-effects

Adverse effects of non-selective monoamine oxidase inhibitors

- hypertensive reactions with tyramine containing foods e.g. cheese, pickled herring, Bovril, Oxo, Marmite, broad beans
- anticholinergic effects

Next question

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MayoClinic

1 3

Low-tyramine diet

PassMedicine

Question 62 of 117

A 27-year-old woman telephones her GP, asking for advice. She is very keen on stopping all of her medications and wishes to stop them all abruptly. She has a past medical history of asthma, depression and intermittent tennis elbow pain, for which she takes a salbutamol inhaler, citalopram and paracetamol respectively.

Which of the following is most likely to occur with regards to abrupt cessation of her medications?

Blunted affect	26%
Cyanopsia	5%
Diarrhoea	62%
Hypertension	4%
Weight gain	4%

Gastrointestinal side-effects such as diarrhoea are seen in SSRI discontinuation syndrome

Important for me Less important

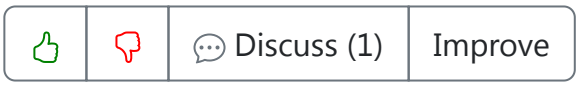
The salient point here is to note the use of citalopram. Stopping a salbutamol inhaler and paracetamol suddenly are not likely to lead to any side effects. Stopping a selective serotonin reuptake inhibitor (SSRI), such as citalopram, abruptly will lead to discontinuation symptoms. From those listed, by far, the most likely is diarrhoea, as gastrointestinal side-effects are generally common with SSRI discontinuation syndrome. To avoid this, SSRIs should gradually be tapered.

A blunted affect is unlikely to occur as a result of sudden discontinuation. This is often a side effect of antidepressants themselves. Discontinuation sometimes leads to the opposite - emotional lability and visible mood swings.

Cyanopsia, or blue-tinted vision, is not known to occur with SSRI discontinuation. It is a recognised side effect of some drugs, including sildenafil.

Hypertension has been reported in a few cases upon discontinuation of SSRIs, but diarrhoea and gastrointestinal symptoms are far more likely. It is more common with sudden discontinuation of beta-blockers.

Weight loss, rather than weight gain, is often reported upon sudden discontinuation of SSRIs.



Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor

- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

Next question

Textbooks

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Links

NICE

2022 Depression in adults: treatment and management

2 6

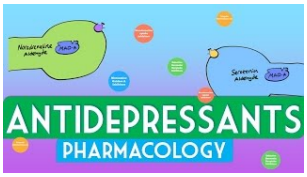
Report broken link

Media



Antidepressants

Speed Pharmacology - YouTube 30 2



Antidepressants Pharmacology

Soton Brain Hub - YouTube 9 3

Report broken media

Score: **21%**

1 ✕
2 ✕
3 ✕
4 ✕

PassMedicine

Question 63 of 117

A 30-year-old man presents to his doctor as he has been feeling generally 'out of sorts' for the past few weeks. He is accompanied by his girlfriend who says he has 'not been himself'. She is worried and feels he may need to see a psychiatrist. There is no history of past mental health problems. Which one of the following symptoms would be most suggestive of depression?

Palpitations	2%
Nausea before certain situations e.g. getting on a bus	2%
Early morning waking	73%
Excessive gambling	7%
Flash-backs to childhood problems	16%

Early morning waking is a classic somatic symptom of depression and often develops earlier than general insomnia.

Palpitations and nausea and more common with anxiety. Excessive gambling may suggest either a simple gambling addiction or be part of a hypomanic/manic disorder.

Flash-backs are common in post-traumatic stress disorder.

Discuss (2) | Improve

Next question

Depression: screening and assessment

Screening

The following two questions can be used to screen for depression

- 'During the last month, have you often been bothered by feeling down, depressed or hopeless?'

- 'During the last month, have you often been bothered by having little interest or pleasure in doing things?'

A 'yes' answer to either of the above should prompt a more in depth assessment.

Assessment

There are many tools to assess the degree of depression including the Hospital Anxiety and Depression (HAD) scale and the Patient Health Questionnaire (PHQ-9).

Hospital Anxiety and Depression (HAD) scale

- consists of 14 questions, 7 for anxiety and 7 for depression
- each item is scored from 0-3
- produces a score out of 21 for both anxiety and depression
- severity: 0-7 normal, 8-10 borderline, 11+ case
- patients should be encouraged to answer the questions quickly

Patient Health Questionnaire (PHQ-9)

- asks patients 'over the last 2 weeks, how often have you been bothered by any of the following problems?'
- 9 items which can then be scored 0-3
- includes items asking about thoughts of self-harm

Traditionally, depression severity has been grouped under 4 categories (subthreshold, mild, moderate and severe). The updated NICE guideline uses a simpler 2 category definition of depression: less severe or more severe depression.

Less severe depression encompasses subthreshold and mild depression, and more severe depression encompasses moderate and severe depression. Thresholds on validated scales were used in this guideline as an indicator of severity

- a score < 16 on the PHQ-9: less severe depression
- a score of ≥ 16 on the PHQ-9: severe depression

The DSM-5 also provides criteria for diagnosing major depressive disorder (MDD), commonly referred to as depression.

Major Depressive Disorder (MDD) DSM-5 Criteria:

Five (or more) of the following symptoms have been present during the same 2-week period and

represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.

- Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad, empty, hopeless) or observation made by others (e.g., appears tearful). (Note: In children and adolescents, can be irritable mood.)
- Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation).
- Significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. (Note: In children, consider failure to make expected weight gain.)
- Insomnia or hypersomnia nearly every day.
- Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down).
- Fatigue or loss of energy nearly every day.
- Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick).
- Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others).
- Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.

Next question

Textbooks

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Links

Patient.info 4 2

PHQ 9 form

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Question 64 of 117

A woman who gave birth 5 days ago presents for review as she is concerned about her mood. She is having difficulty sleeping and feels generally anxious and tearful. Since giving birth she has also found herself snapping at her husband. This is her first pregnancy, she is not breast feeding and there is no history of mental health disorders in the past. What is the most appropriate management?

Explanation and reassurance	72%
Cognitive behavioural therapy	13%
Trial of fluoxetine	3%
Trial of citalopram	2%
Discuss with psychiatric team to consider admission to mother and baby unit	10%

This woman has the baby-blues which is seen in around two-thirds of women. Whilst poor sleeping can be a sign of depression it is to be expected with a new baby!

Discuss (2) | Improve

Next question

Postpartum mental health problems

Postpartum mental health problems range from the 'baby-blues' to puerperal psychosis.

The **Edinburgh Postnatal Depression Scale** may be used to screen for depression:

- 10-item questionnaire, with a maximum score of 30
- indicates how the mother has felt over the previous week
- score > 13 indicates a 'depressive illness of varying severity'
- sensitivity and specificity > 90%
- includes a question about self-harm

'Baby-blues'	Postnatal depression	Puerperal psychosis
Seen in around 60-70% of women Typically seen 3-7 days following birth and is more common in primips Mothers are characteristically anxious, tearful and irritable	Affects around 10% of women Most cases start within a month and typically peaks at 3 months Features are similar to depression seen in other circumstances	Affects approximately 0.2% of women Onset usually within the first 2-3 weeks following birth Features include severe swings in mood (similar to bipolar disorder) and disordered perception (e.g. auditory hallucinations)
Reassurance and support, the health visitor has a key role	As with the baby blues reassurance and support are important NICE CKS state '*Most women with the baby blues will not require specific treatment other than reassurance*' Cognitive behavioural therapy may be beneficial. Certain SSRIs such as sertraline and paroxetine* may be used if symptoms are severe** - whilst they are secreted in breast milk it is not thought to be harmful to the infant	Admission to hospital is usually required, ideally in a Mother & Baby Unit There is around a 25-50% risk of recurrence following future pregnancies

*paroxetine is recommended by SIGN because of the low milk/plasma ratio
**fluoxetine is best avoided due to a long half-life

Next question

Textbooks

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Extended textbook

Links

South African Depression and Anxiety Group 1 0

Edinburgh Postnatal Depression Scale

SIGN 3 1

2012 Management of perinatal mood disorders

NICE 1 1

2014 Antenatal and postnatal mental health

Clinical Knowledge Summaries 0 1

Depression - antenatal and postnatal

Report broken link

Score: **21.9%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗

PassMedicine

Question 65 of 117

A 14-year-old boy is brought for review. He is normally fit and well and hasn't seen a doctor for over five years. His mother has been increasingly concerned about his behaviour in the past few weeks. She describes him staying up late at night, talking quickly and being very irritable. Yesterday he told his mother he was planning to 'take-over' the school assembly and give 'constructive criticism' to his teachers in front of the other pupils. He feels many of his teachers are 'underperforming' and need to be 'retaught' their subjects by him. He admits to trying cannabis once around six months ago and has drank alcohol 'a few times' in the past year, the last time being two weeks ago. Prior to his deterioration a few weeks ago his mother describes him as a happy, well-adjusted, sociable young man. Which one of the following is the most likely diagnosis?

Hypomania	20%
Cannabis-induced psychosis	15%
Mania	56%
Alcoholic hallucinosis	3%
Asperger's syndrome	6%

Cannnabis and alcohol related problems are very unlikely given how long ago he used those substances. The delusions of grandeur imply this is mania rather than hypomania.

Discuss (5) | Improve

Next question

Hypomania vs. mania

Mania	Hypomania
• Lasts for at least 7 days - Causes severe functional impairment in social	• A lesser version of mania

Mania	Hypomania
and work setting • May require hospitalization due to risk of harm to self or others • May present with **psychotic symptoms**	• Lasts for < 7 days, typically 3-4 days. Can be high functioning and does not impair functional capacity in social or work setting • Unlikely to require hospitalization • Does not exhibit any psychotic symptoms

Therefore, the length of symptoms, severity and presence of psychotic symptoms (e.g. delusions of grandeur, auditory hallucinations) helps differentiates mania from hypomania.

The following symptoms are common to both hypomania and mania

Mood
- predominately elevated
- irritable

Speech and thought
- pressured
- flight of ideas: characterised by rapid speech with frequent changes in topic based on associations, distractions or word play
- poor attention

Behaviour
- insomnia
- loss of inhibitions: sexual promiscuity, overspending, risk-taking
- increased appetite

Next question

Textbooks

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Question 66 of 117

An 18-year-old girl is brought in by her mother for medical assessment. She has been refusing meals for an extended period and her oral intake has been severely limited. She has no past medical history.

On examination, she is frail and underweight with a body mass index of 14kg/m^2. There is fine white hair on her arms.

Given the likely diagnosis, what is a possible finding?

High follicle-stimulating hormone	9%
High lutenising hormone	11%
Hyperkalaemia	12%
Low cortisol	28%
Parotidomegaly	40%

Anorexia features

- most things low
- **G**'s and **C**'s raised: **g**rowth hormone, **g**lucose, salivary **g**lands, **c**ortisol, **c**holesterol, **c**arotinaemia

Important for me Less important

Parotidomegaly is correct. The patient presents with reduced oral intake and a very low body mass index along with lanugo hair. This suggests anorexia nervosa (AN) as the diagnosis. Parotidomegaly is a recognised feature of this condition.

High follicle-stimulating hormone (FSH) is incorrect. There is hypothalamic dysfunction in AN but this is characterized by hyposecretion of FSH rather than hypersecretion.

High lutenising hormone (LH) is incorrect. Again, analogous to FSH, the LH level is low rather than high in AN.

Hyperkalaemia is incorrect. Most things are 'low' in AN and potassium follows this pattern. Hypokalaemia, rather than hyperkalemia, is a feature of AN.

Low cortisol is incorrect. The cortisol level is high, rather than low, in AN. High cortisol is an adaptive mechanism to maintain euglycaemia in a state of low energy availability.

Discuss (1) Improve

Next question

Anorexia nervosa: features

Anorexia nervosa is associated with a number of characteristic clinical signs and physiological abnormalities which are summarised below

Features

- reduced body mass index
- bradycardia
- hypotension
- enlarged salivary glands

Physiological abnormalities

- hypokalaemia
- low FSH, LH, oestrogens and testosterone
- raised cortisol and growth hormone
- impaired glucose tolerance
- hypercholesterolaemia
- hypercarotinaemia
- low T3

Next question

PassMedicine

Question 67 of 117

Which one of the following side-effects is more common with atypical than conventional anti-psychotics?

Akathisia	5%
Weight gain	72%
Galactorrhoea	10%
Parkinsonism	5%
Tardive dyskinesia	9%

Atypical antipsychotics commonly cause weight gain

Important for me Less important

The correct answer is **Weight gain**. Atypical antipsychotics, also known as second-generation antipsychotics, are more associated with weight gain than conventional or first-generation antipsychotics. This side effect is particularly common with medications such as olanzapine and clozapine. The mechanism of weight gain involves the antagonism of serotonin 5-HT2C and histamine H1 receptors, resulting in increased appetite and reduced satiety.

Akathisia is a condition characterised by motor restlessness and a compulsion to move. It's more commonly associated with the use of first-generation antipsychotics due to their high D2 receptor blockade which can cause extrapyramidal symptoms, including akathisia. While it can occur with atypical antipsychotics, the incidence is lower compared to conventional ones.

Galactorrhoea, or inappropriate lactation, occurs due to elevated prolactin levels. Both atypical and typical antipsychotics can cause hyperprolactinaemia, but this side effect is less common with atypical agents because they have less dopamine D2 receptor blockade in the tuberoinfundibular pathway where prolactin secretion is regulated.

Parkinsonism refers to symptoms that mimic Parkinson's disease such as bradykinesia, rigidity, tremor and postural instability. These symptoms are more likely to be seen with first-generation antipsychotics due to their strong dopamine D2 receptor antagonism which affects the nigrostriatal pathway involved in motor control.

Lastly, **Tardive dyskinesia**, characterised by repetitive involuntary movements especially around the mouth area (e.g., grimacing), is another extrapyramidal symptom that's more frequently observed with conventional rather than atypical antipsychotics. This is because typical agents have a higher affinity for D2 receptors and a longer duration of D2 blockade compared to atypical agents.

Discuss (3) Improve

Next question

Atypical antipsychotics

Atypical antipsychotics should now be used first-line in patients with schizophrenia, according to 2005 NICE guidelines. The main advantage of the atypical agents is a significant reduction in extrapyramidal side-effects.

Adverse effects of atypical antipsychotics

- weight gain
- clozapine is associated with agranulocytosis (see below)
- hyperprolactinaemia

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Examples of atypical antipsychotics

- clozapine
- olanzapine: higher risk of dyslipidemia and obesity
- risperidone
- quetiapine
- amisulpride
- aripiprazole: generally good side-effect profile, particularly for prolactin elevation

Next question

Textbooks

High-yield textbook

Extended textbook

Links

NICE

2014 Schizophrenia guidelines

3 0

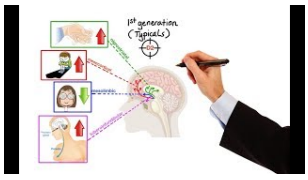
BNF

Clozapine

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Media



Antipsychotics

Speed Pharmacology - YouTube 31 1

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Score: **23.9%**

PassMedicine

Question 68 of 117

A 26-year-old female presents to the Emergency Department feeling suicidal after the breakdown of her relationship two weeks ago. She reports being fearful of being on her own as he had made all major decisions in their relationship as she is not capable of making correct choices. She has tried online dating since her relationship broke down but despite multiple dates has not yet found a new partner.

She advises you she was previously diagnosed with a personality disorder. What is the most likely diagnosis?

Borderline personality disorder	22%
Paranoid personality disorder	2%
Narcissistic personality disorder	2%
Dependent personality disorder	71%
Avoidant personality disorder	3%

Patients with dependant personality disorder require excessive reassurance from others, seek out relationships and require others to take responsibility for major life decisions

Important for me Less important

The correct answer is dependent personality disorder. The patient in the question is struggling to cope after the breakdown of a relationship. Patients with this personality disorder struggle to make everyday life decisions and require reassurance and support from others. They feel they are unable to look after themselves and become fearful when left to do so. As in this patient whose relationship only broke down 2 weeks ago but has already been on multiple dates, they cope best when in a relationship and urgently seek out new relationships if one fails. They will often passively comply with the wishes of others.

Borderline personality disorder is characterised by emotional instability, impulsive behaviour and intense but unstable relationships with others. Patients often fear abandonment but do not seek out excessive reassurance and are able to make life decisions making this the incorrect answer.

In contrast to dependent personality disorder, paranoid personality disorder presents in patients

who are reluctant to confide in others, question the loyalty of friends and family and can be unforgiving.

Narcissistic personality disorder is incorrect. These patients have an over-exaggerated sense of self-importance, lack empathy and tend to have a sense of entitlement.

Avoidant personality disorder is different from dependent personality disorder in that patients avoid social contact/relationships due to fear of being criticised, rejected or embarrassed. Patients view themselves as inferior to others and so are not keen to be involved unless they are certain of being liked.

Further information on personality disorder can be found in the ICD 10 guide - http://apps.who.int/classifications/icd10/browse/2016/en#/F66

Discuss (2) Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	**Cluster B: 'Dramatic, Emotional, or Erratic'**	**Cluster C: 'Anxious and Fearful'**
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others

- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values
- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning

- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

Textbooks

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Media



Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



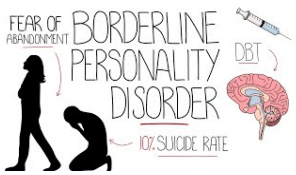
Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2

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Question 69 of 117

A 23-year-old man presents as he is concerned about a number of recent episodes related to sleep. He finds when he wakes up and less often when he is falling asleep he is 'paralysed' and unable to move. This sometimes associated with what the patient describes as 'hallucinations' such as seeing another person in the room. He is becoming increasingly anxious about these recent episodes. What is the most likely diagnosis?

Frontal lobe epilepsy	3%
Generalised anxiety disorder	3%
Sleep paralysis	80%
Night terrors	8%
Acute schizophrenia	6%

The correct answer is **sleep paralysis**. Sleep paralysis is a condition characterized by the inability to move or speak when transitioning between sleep and wakefulness, either when falling asleep or upon awakening. It can be accompanied by vivid hallucinations, which may explain the patient's description of seeing another person in the room. Sleep paralysis is generally harmless but can cause significant anxiety for those who experience it.

The first incorrect option, **frontal lobe epilepsy**, is a type of focal epilepsy that originates in the frontal lobes of the brain. While seizures in frontal lobe epilepsy can occur during sleep and present with unusual behaviours or movements, they would not typically cause the sensation of paralysis described by the patient.

Generalised anxiety disorder (GAD) is another incorrect option. GAD is characterized by excessive and persistent worry about various aspects of life, which might include concerns about one's health. However, GAD does not directly cause episodes of sleep-related paralysis or hallucinations.

The fourth option, **night terrors**, are episodes of intense fear and agitation that occur during deep non-REM sleep. They are more common in children but can also affect adults. During a night terror episode, an individual may scream, thrash around, or exhibit other signs of distress; however, they do not experience paralysis as described by the patient.

Finally, **acute schizophrenia** is an incorrect answer choice. Schizophrenia is a chronic mental health disorder characterized by symptoms such as hallucinations, delusions, disorganized speech and behaviour, and negative symptoms like diminished emotional expression. While hallucinations may be present in schizophrenia patients, the specific pattern of sleep-related paralysis described by this patient does not align with typical manifestations of acute schizophrenia.

In conclusion, based on this 23-year-old man's presentation of transient paralysis upon waking up or falling asleep, accompanied by hallucinations and increasing anxiety, the most likely diagnosis is sleep paralysis.

Discuss (6) Improve

Next question

Sleep paralysis

Sleep paralysis is a common condition characterized by transient paralysis of skeletal muscles which occurs when awakening from sleep or less often while falling asleep. It is thought to be related to the paralysis that occurs as a natural part of REM (rapid eye movement) sleep. Sleep paralysis is recognised in a wide variety of cultures

Features

- paralysis - this occurs after waking up or shortly before falling asleep
- hallucinations - images or speaking that appear during the paralysis

Management

- if troublesome clonazepam may be used

Next question

Textbooks

PassMedicine

Question 70 of 117

A 40-year-old with an established diagnosis of depression and anxiety disorder is seen in the clinic for a review of his condition. The patient had been prescribed amitriptyline previously offering varying levels of improvement. However, he discontinued this recently due to the side effects he encountered.

As such a proposed a trial of duloxetine is suggested. Before proceeding, a thorough review of his current medication is conducted to ensure no potential interactions and the side effect profile of the drug is provided.

What is this new drug's mechanism of action?

Dopamine agonists	2%
Noradrenergic and specific serotonergic antidepressant	11%
Norepinephrine-dopamine reuptake inhibitor	6%
Selective serotonin reuptake inhibitors	15%
Serotonin-noradrenaline reuptake inhibitor	66%

Duloxetine mechanism of action = serotonin and noradrenaline reuptake inhibitor

Important for me Less important

Duloxetine is a recently developed medication utilized to treat major depressive and generalized anxiety disorders, along with specific pain conditions like fibromyalgia and neuropathic pain. It functions as a **serotonin-noradrenaline reuptake inhibitor**, increasing the levels of both serotonin and noradrenaline in the synaptic clefts. Although the exact mechanism for its antidepressant and anxiolytic effects remains uncertain, this increase in neurotransmitter concentration is believed to play a crucial role. Whether medications that boost both neurotransmitters are more effective than those targeting only one is still a topic requiring further investigation.

Dopamine agonists are commonly used as adjuncts in the management of Parkinson's disease for patients experiencing depressive symptoms. They are rarely used in the management of depression and anxiety alone. Common examples include bromocriptine, ropinirole and

cabergoline.

Noradrenergic and specific serotonergic antidepressants (NaSSAs) represent a category of psychiatric medications primarily employed as antidepressants. Their mechanism involves the antagonism of the Î±2-adrenergic receptor and specific serotonin receptors. Through the inhibition of Î±2-adrenergic autoreceptors and heteroreceptors, NaSSAs effectively amplify the transmission of adrenergic and serotonergic neurotransmitters within the brain, particularly the mood-regulating 5-HT1A-mediated transmission. Mirtazapine is an example of this antidepressant class.

Norepinephrine-dopamine reuptake inhibitors function by blocking the reuptake of norepinephrine and dopamine neurotransmitters. They achieve this by inhibiting the norepinephrine transporter (NET) and the dopamine transporter (DAT), respectively resulting in an increase in extracellular concentrations of both neurotransmitters, leading to enhanced adrenergic and dopaminergic neurotransmission. These inhibitors are commonly employed in the treatment of clinical depression, attention deficit hyperactivity disorder (ADHD) and narcolepsy.

Selective serotonin reuptake inhibitors (SSRI) raise the extracellular levels of the neurotransmitter serotonin by impeding its reabsorption into the presynaptic cell. They exhibit different levels of selectivity for other monoamine transporters, with pure SSRIs having a strong affinity for the serotonin transporter and only a weak affinity for the norepinephrine and dopamine transporters. Some common examples of SSRIs include citalopram, sertraline, and fluoxetine.

Discuss Improve

Next question

Serotonin and noradrenaline reuptake inhibitors

Serotonin and noradrenaline reuptake inhibitor (SNRI's) are a class of relatively new antidepressants. Inhibiting the reuptake increases the concentrations of serotonin and noradrenaline in the synaptic cleft leading to the effects. Examples include venlafaxine and duloxetine. They are used to treat major depressive disorders, generalised anxiety disorder, social anxiety disorder and panic disorder and menopausal symptoms.

Next question

PassMedicine

Question 71 of 117

A 40-year-old with known rheumatoid arthritis, established on sulfasalazine and regular paracetamol and ibuprofen, is seen by her GP with ongoing low mood. Non-pharmaceutical interventions have been trialled with limited improvement and now the patient reports they feel their depressive symptoms are worsening.

As such the GP decided to commence the patient on an antidepressant.

What agent would increase this patient's risk of a GI bleed the most, therefore, warranting a protein pump inhibitor as cover?

Amitriptyline	13%
Citalopram	68%
Haloperidol	4%
Selegiline	7%
St John's Wort	8%

SSRI + NSAID = GI bleeding risk - give a PPI

Important for me Less important

Citalopram is a common selective serotonin reuptake inhibitor (SSRIs), which are now considered the first-line treatment for most patients with depression. As the name suggests SSRIs increase the extracellular level of serotonin by limiting its reabsorption at the pre-synapses. Gastrointestinal (GI) disruption is common with SSRI use, and they are associated with a significant risk of GI bleeding. It is thought SSRI potential deplete platelet serotonin, resulting in a reduction in clot formation, therefore, increasing the risk of bleeding. As this patient is already established on an NSAID the addition of an SSRI will increase her risk of GI bleeding further and therefore a protein pump inhibitor (PPI) should also be prescribed.

Amitriptyline is a tricyclic antidepressant (TCA) that can be used in the management of major depressive disorders as well as several different pain syndromes. Amitriptyline inhibits serotonin transporter (SERT) and norepinephrine transporter (NET) both increasing neurotransmitter availability. The main adverse effects of TCAs are related to their anticholinergic effects resulting in

symptoms such as blurred vision, dry mouth, and constipation etc. GI bleeds are not commonly associated with TCAs.

Haloperidol is a typical antipsychotic, rarely used for patients with severe depression and psychotic symptoms. It blocks receptors in the brain's dopamine pathways and therefore the main adverse effects include, extrapyramidal side effects (akathisia, dystonia etc), hypotension and anticholinergic effects. Again GI bleeds are rare.

Selegiline is a selective and irreversible inhibitor of monoamine oxidase B (MAO-B), and therefore in the class of monoamine oxidase inhibitors (MAOIs). MAOIs are used as antidepressants and work by preventing the breakdown of monoamine neurotransmitters, increasing their availability. MAOIs have been associated with an increased risk of serotonin syndrome and hypertensive crises but GI bleeds are rare.

Hypericum perforatum, commonly known as **St John's Wort** is a plant frequently used in alternative medicine, particularly for the management of depression. Although its use remains controversial multiple studies have indicated it may have superiority over placebo on treating mild to moderate depression, with the active ingredients thought to be hypericin and hyperforin. St John's wort can interfere with other medications, and its use with other antidepressants is associated with an increased risk of serotonin syndrome, however, it has not been associated with an increased risk of GI bleeding.

Discuss (1) Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect

- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

Next question

Textbooks

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NICE 2 6

2022 Depression in adults: treatment and management

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Media



Antidepressants

Speed Pharmacology - YouTube 30 2

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Question 72 of 117

A 25-year-old woman presents with an inability to use her right arm, for 3 days. The patient has been living with her mother for the past 5 days after being a victim of domestic abuse from her husband. She is unable to move her right arm from her shoulder to her fingers. She denies any trauma. The patient admits to feeling very stressed currently.

Examination shows normal tone and reflexes but 0/5 power in all muscle groups of the right upper limb. When the affected arm is held above the patient's face and released, the arm misses the face and falls at the patient's side.

What is the likely diagnosis?

Acute stress disorder	9%
Conversion disorder	66%
Post traumatic stress disorder (PTSD)	6%
Somatisation disorder	17%
Spinal cord lesion	1%

Functional neurological disorder (conversion disorder) - typically involves loss of motor or sensory function

Important for me Less important

This patient has no historical or clinical findings of neurological disease. The likely diagnosis here is **conversion disorder** - a psychiatric condition where psychological stress is unconsciously manifested as physical, neurological symptoms. This was most likely triggered by recent domestic abuse and stress. This patient also has a positive drop-arm test in which the patient unconsciously exhibits a controlled drop to prevent the arm from hitting their face.

Acute stress disorder occurs following life-threatening experiences such as abuse; however, it is characterised by symptoms of hyperarousal, re-experiencing of the traumatic event, avoidance of stimuli and distress - not physical weakness. As opposed to post-traumatic stress disorder, it lasts between 3 days and 1 month.

Post-traumatic stress disorder occurs following life-threatening experiences such as abuse; it fits the same definition as acute stress disorder, but symptoms lasting longer than 1 month.

Patients with **somatisation disorder** have multiple bodily complaints lasting months to years and persistent anxiety about their symptoms. Considering this patient's history and physical findings she likely has conversion disorder.

Considering this patient's normal tone and reflexes and lack of trauma to the neck or spine, a **spinal cord lesion** causing total arm paralysis is very unlikely.

Discuss (3) Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder

- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Functional neurological disorder (conversion disorder)

- typically involves loss of motor or sensory function
- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)
- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Dissociative disorder

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor
- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Next question

Textbooks

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Extended textbook

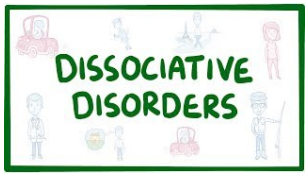
Links

Royal College of Physicians 5 2

2013 Functional neurological symptoms

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Media



Dissociative disorders

Osmosis - YouTube 19 1

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Question 73 of 117

Which one of the following is associated with a good prognosis in schizophrenia?

Acute onset	71%
Strong family history	4%
Low IQ	3%
Premorbid history of social withdrawal	4%
Lack of obvious precipitant	18%

The correct answer is **Acute onset**. Acute onset of schizophrenia is associated with a better prognosis compared to insidious or gradual onset. This is because acute onset often follows a stressful event and patients usually have a good premorbid personality and functioning. They are also more likely to respond well to treatment, which improves the overall prognosis.

Now let's discuss why the other options are incorrect.

Strong family history: While having a strong family history of schizophrenia does increase an individual's risk for developing the disease, it does not correlate with a better prognosis. In fact, some studies suggest that individuals with a strong family history may have more severe symptoms and poorer response to treatment.

Low IQ: Low IQ is generally associated with poorer outcomes in schizophrenia. Individuals with lower cognitive abilities may struggle more with managing their symptoms and adhering to treatment plans, leading to worse outcomes over time.

Premorbid history of social withdrawal: A premorbid history of social withdrawal is generally associated with worse outcomes in schizophrenia. These individuals often have poorer social skills and fewer support systems in place, which can complicate treatment and recovery efforts.

Lack of obvious precipitant: The presence or absence of an obvious precipitant does not significantly impact the prognosis of schizophrenia. However, as mentioned earlier, those who experience acute onset following a stressful event (which could be considered an 'obvious precipitant') tend to have better outcomes.

Discuss (1) | Improve

Next question

Schizophrenia: prognostic indicators

Factors associated with poor prognosis

- strong family history
- gradual onset
- low IQ
- prodromal phase of social withdrawal
- lack of obvious precipitant

Next question

Textbooks

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NICE

2014 Schizophrenia guidelines

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Media

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Question 74 of 117

You review a patient who has been taking citalopram for the past two years to treat depression. He has felt well now for the past year and you agree a plan to stop the antidepressant. How should the citalopram be stopped?

Can be stopped immediately	3%
Withdraw gradually over the next 3 days	1%
Withdraw gradually over the next week	2%
Withdraw gradually over the next 2 weeks	15%
Withdraw gradually over the next 4 weeks	80%

When stopping a SSRI the dose should be gradually reduced over a 4 week period

Important for me Less important

The correct answer is **Withdraw gradually over the next 4 weeks**. This is because citalopram, like other selective serotonin reuptake inhibitors (SSRIs), can cause withdrawal symptoms if stopped abruptly. These symptoms include dizziness, sleep disturbances, anxiety and mood changes. The UK National Institute for Health and Care Excellence (NICE) guidelines recommend that antidepressants should be withdrawn over a period of at least four weeks to minimise the risk of withdrawal symptoms.

Can be stopped immediately is not recommended as it increases the risk of withdrawal symptoms. This applies to most SSRIs including citalopram.

Withdraw gradually over the next 3 days and **withdraw gradually over the next week** are both too short periods for safe discontinuation. They would likely result in similar problems as immediate cessation due to inadequate time for physiological adjustment.

Withdraw gradually over the next 2 weeks, although better than the previous options, is still less than the recommended minimum duration by NICE guidelines which suggests a gradual reduction over at least four weeks. Therefore, it may still lead to significant withdrawal symptoms in some patients.

Discuss (6) Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin

- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

Next question

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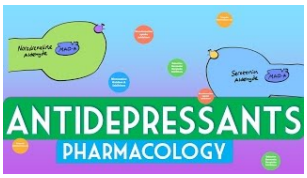
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Media



Antidepressants

Speed Pharmacology - YouTube 30 2



Antidepressants Pharmacology

Soton Brain Hub - YouTube 9 3

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Score: **21.6%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓

PassMedicine

Question 75 of 117

An 18-year-old woman attends the emergency department with drowsiness. She was found lying in the street. Shortly after admission, she has a tonic clinic seizure which is terminated with lorazepam. On examination, you note mydriasis and urinary retention. Her Glasgow Coma Score (GCS) is currently 11 (M5, V3, E3).

An ECG performed in the department is as follows:

ECG	Sinus tachycardia (120 beats per minute); QRS duration 140ms; Dominant terminal R wave in aVR; First-degree AV block

What is the most likely cause?

Digoxin	5%
Dosulepin	47%
Ivabradine	3%
Quinine	9%
Sertraline	36%

Dosulepin - avoid as dangerous in overdose

Important for me Less important

Dosulepin is correct, The clinical (e.g. seizures, mydriasis, urinary retention) and electrocardiographic features are most in keeping with tricyclic overdose. These agents block sodium channels resulting in CNS and cardiovascular toxicity in overdose in the form of seizures and ventricular dysrhythmias. Tricyclics mediate their cardiotoxic effects via blockade of myocardial fast sodium channels (e.g. QRS prolongation, tall R wave in aVR), inhibition of potassium channels (e.g. QTc prolongation), and direct myocardial depression.

Digoxin is incorrect, The classical digoxin toxic dysrhythmia combines:

- Supraventricular tachycardia (due to increased automaticity)
- Slow ventricular response (due to decreased AV conduction)

The broad complex tachycardia in this case makes digoxin toxicity less likely. However rarely this can occur in digoxin toxicity due to a bidirectional ventricular tachycardia (VT) with a frontal-plane axis that alternates by 180 degrees with each successive beat.

Ivabradine is incorrect. Ivabradine toxicity can cause bradycardia, sinus arrest, and heart block.

Quinine is incorrect. Although quinine is also a sodium channel-blocking agent and can cause a wide complex tachyarrhythmia, the presence of mydriasis and urinary retention favours a diagnosis of amitriptyline toxicity.

Sertraline is incorrect. SSRI overdose can predispose to prolonged QTc and Torsades de pointes. Although seizures and mydriasis (e.g. serotonin syndrome) can occur with SSRI toxicity, the electrocardiographic features of a broad complex tachycardia and a dominant terminal R wave in aVR are more consistent with tricyclic toxicity.

Discuss (2) Improve

Next question

Tricyclic antidepressants

Tricyclic antidepressants (TCAs) are used less commonly now for depression due to their side-effects and toxicity in overdose. They are however used widely in the treatment of neuropathic pain, where smaller doses are typically required.

The primary mechanism by which TCAs exert their antidepressant effects is through the inhibition of the reuptake of neurotransmitters

- Serotonin (5-HT): This neurotransmitter has a pivotal role in mood regulation. Inhibition of its reuptake leads to increased concentrations in the synaptic cleft, enhancing serotonergic neurotransmission.
- Noradrenaline (NA): Similar to 5-HT, blocking the reuptake of NA increases its synaptic cleft concentration, intensifying noradrenergic neurotransmission.

As well as 5-HT and NA, tricyclics interact with number of other receptors that contribute to their side-effect profile:

- antagonism of histamine receptors
  - drowsiness
- antagonism of muscarinic receptors
  - dry mouth
  - blurred vision

    - constipation
    - urinary retention
- antagonism of adrenergic receptors
    - postural hypotension
- lengthening of QT interval

Choice of tricyclic

- low-dose amitriptyline is commonly used in the management of neuropathic pain and the prophylaxis of headache (both tension and migraine)
- lofepramine has a lower incidence of toxicity in overdose
- amitriptyline and dosulepin (dothiepin) are considered the most dangerous in overdose

More sedative	Less sedative
Amitriptyline Clomipramine Dosulepin Trazodone*	Imipramine Lofepramine Nortriptyline

*trazodone is technically a 'tricyclic-related antidepressant'

Next question

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Question 76 of 117

The mother of a 28-year-old male who has been diagnosed with a personality disorder comes to see you. She reports that her son has been arrested multiple times and can often be aggressive getting into fights. As a teenager, he would lie to obtain money, played truant and would say unpleasant hurtful things to her without apology or apparent regret. He has never held down a job and relies on his parents for financial support.

His mother has the name of the condition he has been diagnosed with and knows you are not able to discuss the individual case. She asks if you can provide generic information on his condition to aid her understanding as she has always blamed herself for his behaviour.

What is the most likely condition her son has been diagnosed with?

Avoidant personality disorder	2%
Antisocial personality disorder	77%
Borderline personality disorder	8%
Narcissistic personality disorder	9%
Histrionic personality disorder	4%

Patients with antisocial personality disorder often fail to conform to social norms, and show lack of remorse, deception and irresponsibility

Important for me Less important

The correct answer here is 2 - antisocial personality disorder. Patients with this condition often fail to comply with social norms in terms of lawful behaviour resulting in multiple arrests. They are prone to getting into fights due to aggressiveness and can be deceitful particularly when seeking material gain. They can have a disregard for the safety of themselves and others and are irresponsible, failing to support themselves financially. When they do act inappropriately or in a hurtful way to others, they are unable to show remorse for their actions. There is often a history of problems such as truancy in childhood. Their behaviour can have a significant impact on family life and so it is understandable that his mother may have blamed herself in the past and want more information. It is important to ensure that during this consultation confidentiality is not breached.

Patients with avoidant personality disorder tend to avoid social contact/relationships due to fear of being criticised, rejected or embarrassed. They view themselves as inferior to others and so are not keen to be involved unless they are certain of being liked. Hence this is not the correct answer.

Borderline personality disorder is characterised by emotional instability, impulsive behaviour and intense but unstable relationships with others. Patients often have feelings of emptiness, poor self-image and recurrent attempts at self-harm. Again making this an incorrect answer.

Narcissistic personality disorder is also incorrect. These patients have an over exaggerated perception of self-importance, lack empathy and tend to have a sense of entitlement.

Histrionic personality disorder is seen in patients who crave to be the centre of attention. They can also be sexually inappropriate and suggestible and as such, this is not the correct answer.

Discuss | Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	Cluster B: 'Dramatic, Emotional, or Erratic'	Cluster C: 'Anxious and Fearful'
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others

- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values
- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning

- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

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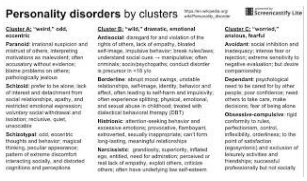
Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



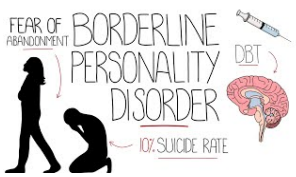
Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2

PassMedicine

Question 77 of 117

A 42-year-old woman presents to the Emergency Department complaining of abdominal pain. She describes generalised abdominal discomfort that has been present constantly for the last four days. She has not experienced any changes to her bowel habit, and has no urinary symptoms. Her weight is stable. She is very concerned that these symptoms are due to an underlying ovarian cancer.

She has presented to both primary and secondary care multiple times this year with similar symptoms. Each time, she has been convinced that she has ovarian cancer, and has not been reassured by a series of negative investigations, including blood tests and pelvic ultrasound scans. Her mother died of ovarian cancer in her sixties.

Her blood test results are as follows:

Hb	118 g/L	Male: (135-180) Female: (115 - 160)
Platelets	195 * 10^9/L	(150 - 400)
WBC	5.8 * 10^9/L	(4.0 - 11.0)
Na^+	135 mmol/L	(135 - 145)
K^+	3.7 mmol/L	(3.5 - 5.0)
Urea	3.5 mmol/L	(2.0 - 7.0)
Creatinine	59 µmol/L	(55 - 120)
CA-125	31 U/mL	(<46)

What is the most likely explanation for her presentation?

Ovarian cancer	1%
Illness anxiety disorder	72%
Somatisation disorder	18%
Conversion disorder	8%
Malingering	2%

Illness anxiety disorder (hypochondriasis) is the persistent belief in the presence of an underlying serious disease, e.g. cancer

Important for me Less important

This patient has presented with an unshakeable conviction that she has a specific serious disease, i.e. ovarian cancer. Her conviction has not become any less strong in the face of negative investigations for the disease in question. This is characteristic of illness anxiety disorder (hypochondriasis), and has likely been contributed to by her mother dying of ovarian cancer.

Ovarian cancer can present insidiously, with vague symptoms such as abdominal pain. However, the diagnosis of ovarian cancer in this patient is made much less likely by a normal CA-125 level, and recent normal pelvic ultrasonography.

Somatisation disorder is also characterised by unexplained symptoms, with patients refusing to accept normal investigation findings as reassurance. However, in somatisation disorder, the symptoms are often more varied, and tend to be present for a longer period of time. The fixation on a specific diagnosis, rather than the symptoms per se, is more in keeping with hypochondriasis.

Conversion disorder is most typically associated with an unexplained loss of sensory or motor function.

Malingering describes the fraudulent fabrication of symptoms with a calculated motive, such as financial gain or exemption from work duties. There is no suggestion that this patient has such a motive for seeking medical attention.

Discuss (2) Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder

- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Functional neurological disorder (conversion disorder)

- typically involves loss of motor or sensory function
- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)
- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Dissociative disorder

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor
- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Next question

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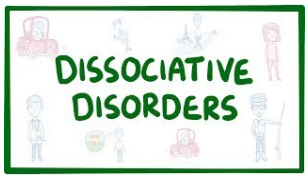
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Royal College of Physicians 5 2

2013 Functional neurological symptoms

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Media



Dissociative disorders

Osmosis - YouTube 19 1

Factitious disorder

Osmosis - YouTube 9 1



Somatic symptom disorder

Osmosis - YouTube 8 1

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Score: **22.1%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗

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Question 78 of 117

A 47-year-old female with poorly controlled type 1 diabetes attends clinic today with pain in both her legs that have been progressing over the last few months. You suspect diabetic neuropathy.

What medication can be used first-line to treat this?

Capsaicin cream	4%
Duloxetine	49%
Pregabalin	26%
Gabapentin	18%
Clomipramine	3%

Duloxetine mechanism of action = serotonin and noradrenaline reuptake inhibitor

Important for me Less important

In diabetic neuropathy, the first-line treatment is duloxetine, a serotonin and noradrenaline reuptake inhibitor. An alternative is a venlafaxine, another SNRI which does not have quite as much available data for its use.

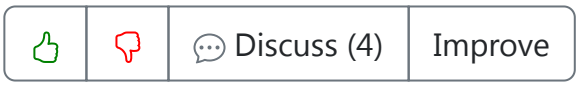
Looking at the others:

Capsaicin cream can be used for neuropathic pain and diabetic neuropathy, but it is not the first line. It works by 'defunctionalising' the nerves through binding to cutaneous nociceptors to modulate the pain sensation.

Pregabalin is an alpha-2-delta ligand antiepileptic drug. Its effects on pain are thought to be related to presynaptic inhibition of the release of excitatory neurotransmitters e.g. glutamate. It is a second-line drug for neuropathic pain from diabetes.

Gabapentin has a similar mechanism of action to pregabalin and works on pain in a similar way. It too is a second-line medication for neuropathic pain in diabetes.

Clomipramine is a tricyclic antidepressant that is used for depressive illness, phobic states and cataplexy. It is not used for neuropathic pain.



Next question

Serotonin and noradrenaline reuptake inhibitors

Serotonin and noradrenaline reuptake inhibitor (SNRI's) are a class of relatively new antidepressants. Inhibiting the reuptake increases the concentrations of serotonin and noradrenaline in the synaptic cleft leading to the effects. Examples include venlafaxine and duloxetine. They are used to treat major depressive disorders, generalised anxiety disorder, social anxiety disorder and panic disorder and menopausal symptoms.

Next question



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Antidepressants

PassMedicine

Question 79 of 117

A 44-year-old woman attends the clinic for review. She was started on sertraline 12 months ago for severe depression. She informs you that the symptoms of depression have now resolved.

For how long should she continue with treatment?

1 month	8%
12 months	5%
3 months	9%
6 months	71%
Indefinitely	6%

Antidepressants should be continued for at least 6 months after remission of symptoms to decrease risk of relapse

Important for me Less important

6 months is correct. Antidepressants should be continued for at least 6 months after remission of symptoms to decrease the risk of relapse.

Discuss Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants

- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change

- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

Next question

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2 6

2022 Depression in adults: treatment and management

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Media

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Question 80 of 117

A 41-year-old man presents to the Emergency Department insisting that he is infested with fleas. He describes that he feels unbearably itchy, and is demanding treatment. This is his third attendance within the last year with this problem. The patient has no significant past medical history and denies taking any recreational drugs. His alcohol intake is reported as 14 units of alcohol per week. He is currently working full-time as a librarian.

What is the most likely diagnosis?

Capgras syndrome	4%
Delirium tremens	5%
Delusional parasitosis	86%
Fregoli syndrome	4%
Schizophrenia	1%

Patient with a fixed, false belief (delusion) that they are infested by 'bugs' → delusional parasitosis

Important for me Less important

The correct answer is **delusional parasitosis**. Delusional parasitosis is a rare condition in which patients present with a fixed, false belief that they are infected by bugs. Although it may present in conjunction with other psychiatric disorders, it may present in isolation, and leave patients relatively functionally unimpaired, as in this case.

Capgras syndrome is incorrect. This is a delusional misidentification syndrome whereby the patient believes that someone significant in their life, such as a spouse or a friend, has been replaced by an identical imposter.

Delirium tremens is incorrect. Although delirium tremens may involve visual hallucinations of insects, or tactile hallucinations similar to this patient's symptoms, this patient is not exhibiting other physical symptoms of delirium tremens (tremor, sweating, disorientation), and the alcohol history provided is not suggestive of excessive consumption followed by abrupt withdrawal.

Fregoli syndrome is incorrect. This is another delusional misidentification syndrome where the patient believes that multiple people are in fact all the same person, who is constantly changing their appearance.

Schizophrenia is incorrect. Schizophrenia most commonly involves auditory hallucinations rather than tactile hallucinations. In addition, the diagnosis of schizophrenia requires other symptoms to be present in addition to hallucinations, such as formal thought disorder or diminished emotional expression.

Discuss (1) Improve

Next question

Delusional parasitosis

Delusional parasitosis is a relatively rare condition where a patient has a fixed, false belief (delusion) that they are infested by 'bugs' e.g. worms, parasites, mites, bacteria, fungus. This may occur in conjunction with other psychiatric conditions or may present by itself, with patients often otherwise quite functional despite the delusion.

Next question

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Question 81 of 117

A 45-year-old man who takes chlorpromazine for schizophrenia presents with severe restlessness. What side-effect of antipsychotic medication is this an example of?

Akathisia	66%
Neuroleptic malignant syndrome	7%
Acute dystonia	7%
Tardive dyskinesia	18%
Parkinsonism	2%

Antipsychotics may cause akathisia (severe restlessness)

Important for me Less important

The correct answer is **Akathisia**. Akathisia is a common side effect of antipsychotic medications, particularly those of the first generation like chlorpromazine. It is characterised by a subjective feeling of restlessness, often with an inability to sit still. The patient may pace around or constantly fidget. This condition typically occurs within the first few weeks of treatment.

Neuroleptic malignant syndrome (NMS) is incorrect as this severe reaction to antipsychotics usually presents with hyperthermia, altered mental status, autonomic dysfunction and generalised muscle rigidity (often described as 'lead pipe' rigidity). Although agitation can be a feature of NMS due to the altered mental status, it would not be the sole presenting symptom.

Acute dystonia is also incorrect because it refers to sudden onset involuntary muscle contractions that cause abnormal movements and postures. These can include oculogyric crisis (involuntary upward eye movement), torticollis (twisting of the neck muscles) and trismus (lockjaw). Restlessness is not characteristic.

Similarly, **Tardive dyskinesia** doesn't fit this presentation either. This side effect generally occurs after long-term use of antipsychotic medication, typically more than 3 months. It manifests as repetitive, involuntary movements such as lip smacking or puckering, grimacing, tongue protrusion and rapid blinking.

Lastly, **Parkinsonism** resulting from antipsychotic use would present with bradykinesia (slowness of movement), resting tremor and rigidity rather than restlessness. It's important to remember that Parkinsonism refers to conditions that exhibit symptoms similar to Parkinson's disease but are caused by other factors such as medication use or different neurological disorders.

Discuss (2) Improve

Next question

Antipsychotics

Antipsychotics are a group of drugs used in the management of schizophrenia and other forms of psychosis, mania and agitation. They are usually divided into typical and atypical antipsychotics. The atypical antipsychotics were developed due to the problematic extrapyramidal side-effects which are associated with the first generation of typical antipsychotics.

	Typical antipsychotics	**Atypical antipsychotics**
Mechanism of action	Dopamine D2 receptor antagonists, blocking dopaminergic transmission in the mesolimbic pathways	Act on a variety of receptors (D2, D3, D4, 5-HT)
Adverse effects	Extrapyramidal side-effects and hyperprolactinaemia common	Extrapyramidal side-effects and hyperprolactinaemia less common Metabolic effects
Examples	Haloperidol Chlorpromazine	Clozapine Risperidone Olanzapine

The rest of this section will focus on typical antipsychotics, with atypical antipsychotics covered elsewhere.

Extrapyramidal side-effects (EPSEs)

- Parkinsonism
- acute dystonia
  - sustained muscle contraction (e.g. torticollis, oculogyric crisis)
  - may be managed with procyclidine

- akathisia (severe restlessness)
- tardive dyskinesia (late onset of choreoathetoid movements, abnormal, involuntary, may occur in 40% of patients, may be irreversible, most common is chewing and pouting of jaw)

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Other side-effects

- antimuscarinic: dry mouth, blurred vision, urinary retention, constipation
- sedation, weight gain
- raised prolactin
  - may result in galactorrhoea
  - due to inhibition of the dopaminergic tuberoinfundibular pathway
- impaired glucose tolerance
- neuroleptic malignant syndrome: pyrexia, muscle stiffness
- reduced seizure threshold (greater with atypicals)
- prolonged QT interval (particularly haloperidol)

Next question

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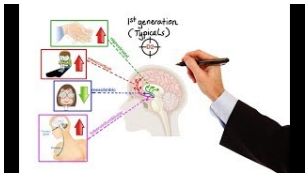
Psychoses and related disorders

Clinical Knowledge Summaries 2 1

Schizophrenia > Prescribing Information > Adverse effects

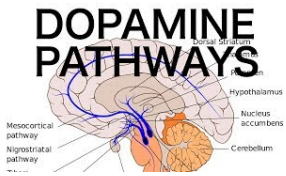
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Media



Antipsychotics

Speed Pharmacology - YouTube 38 0



Antipsychotics, Dopamine, and EPS

Dirty USMLE - YouTube 24 0



Video of patients with tardive dyskinesia

Abnormal Involuntary Movement Scale training video - YouTube 17 3

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Score: **23.5%**

1 ✕

2 ✕

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Question 82 of 117

A 45-year-old man is admitted due to haematemesis. He reports drinking 120 units of alcohol a week. When is the peak incidence of seizures following alcohol withdrawal?

2 hours	1%
6 hours	5%
12 hours	14%
24 hours	16%
36 hours	64%

Alcohol withdrawal
- symptoms: 6-12 hours
- seizures: 36 hours
- delirium tremens: 72 hours

Important for me Less important

Discuss (2) Improve

Next question

Alcohol withdrawal

Mechanism
- chronic alcohol consumption enhances GABA mediated inhibition in the CNS (similar to benzodiazepines) and inhibits NMDA-type glutamate receptors
- alcohol withdrawal is thought to be lead to the opposite (decreased inhibitory GABA and increased NMDA glutamate transmission)

Features

- symptoms start at 6-12 hours: tremor, sweating, tachycardia, anxiety
- peak incidence of seizures at 36 hours
- peak incidence of delirium tremens is at 48-72 hours: coarse tremor, confusion, delusions, auditory and visual hallucinations, fever, tachycardia

Management

- patients with a history of complex withdrawals from alcohol (i.e. delirium tremens, seizures, blackouts) should be admitted to hospital for monitoring until withdrawals stabilised
- first-line: long-acting benzodiazepines e.g. chlordiazepoxide or diazepam. Lorazepam may be preferable in patients with hepatic failure. Typically given as part of a reducing dose protocol
- carbamazepine also effective in treatment of alcohol withdrawal
- phenytoin is said not to be as effective in the treatment of alcohol withdrawal seizures

Next question

Textbooks

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Score: **23.2%**

1 ✗
2 ✗
3 ✗
4 ✗

PassMedicine

Question 83 of 117

A 61-year-old businessman presents with a 3-year history of severe itchiness and sores containing 'white fibres' which he said are living 'bugs'. He is otherwise well and takes no regular medication. On examination, there are well-demarcated, scooped-out clean ulcerations with occasional white filaments, some hypopigmented patches, and extensive chronic excoriations. There is sparring between the scapula. Multiple and extensive dermatology and infectious disease outpatient investigations and treatments have failed to find a cause nor improve symptoms.

What is the most likely diagnosis?

Body dysmorphic disorder	5%
Conversion disorder	3%
Delusional parasitosis	69%
Somatic symptom disorder	11%
Tactile hallucinations	13%

Patient with a fixed, false belief (delusion) that they are infested by 'bugs' → delusional parasitosis

Important for me Less important

Delusional parasitosis is the correct answer, as this patient is presenting with signs and symptoms consistent with 'Morgellons' which is regarded as a form of delusional parasitosis. Reported fibres or inanimate materials are often found to be common household/clothing materials (e.g. cotton). Skin lesions are consistent with chronic excoriations and the scooped-out lesion is consistent with repetitive picking of lesions. The hypopigmented patches are healed lesions. Sparring of the area between the scapula indicates the area the hands are unable to reach, and no lesions were evident there.

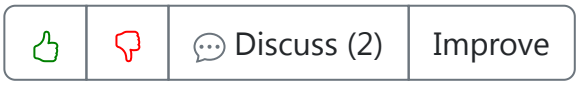
Body dysmorphic disorder is a persistent preoccupation of one or more aspects of one's own physical appearance, in a derogatory manner. The aspect in question is either normal or has only minor defects.

Conversion disorder manifests as neurological symptoms (e.g. weakness, non-epileptic seizures,

negative sensory symptoms, movement disorders) without any identifiable structural pathology.

Somatic symptom disorder is a mental disorder characterised by physical symptoms (e.g. pain, weakness, shortness of breath) of which there is no objective evidence of pathology, AND is associated with the excessive preoccupation of these symptoms.

Tactile hallucinations is not a diagnosis; however, it is a symptom present in patients with delusional parasitosis. The question was asking for a diagnosis.



Next question

Delusional parasitosis

Delusional parasitosis is a relatively rare condition where a patient has a fixed, false belief (delusion) that they are infested by 'bugs' e.g. worms, parasites, mites, bacteria, fungus. This may occur in conjunction with other psychiatric conditions or may present by itself, with patients often otherwise quite functional despite the delusion.

Next question



Textbooks

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Question 84 of 117

A 25-year-old man demands a CT scan of his abdomen in clinic. He states it is 'obvious' he has cancer despite previous negative investigations. This is an example of a:

Hypochondrial disorder	84%
Conversion disorder	4%
Munchausen's syndrome	5%
Dissociative disorder	1%
Somatisation disorder	6%

Unexplained symptoms

- **S**omatisation = **S**ymptoms
- hypo**C**hondria = **C**ancer

Important for me Less important

The correct answer is **Hypochondrial disorder**. This condition, also known as Illness Anxiety Disorder in the DSM-5, is characterised by a preoccupation with having or acquiring a serious illness. Somatic symptoms are not present or, if they do occur, they are only mild in intensity. If a medical condition is present or there is high risk for developing a medical condition (e.g., strong family history of a disease), the preoccupation is clearly excessive or disproportionate. The patient has performed excessive health-related behaviours (e.g., repeatedly checking his body for signs of illness) or exhibits maladaptive avoidance (e.g., avoiding doctor appointments and hospitals). The illness preoccupation has been present for at least six months but the specific illness feared may change over that period of time.

Conversion disorder, also known as Functional Neurological Symptom Disorder, involves symptoms affecting voluntary motor or sensory function suggesting neurological conditions. However, these symptoms cannot be explained by any neurological or medical condition and are not the result of substance use or better explained by another mental disorder. In this case scenario, the patient does not display any such symptoms hence it's incorrect.

Munchausen's syndrome now referred to as Factitious Disorder Imposed on Self, involves

individuals deliberately producing or feigning physical or psychological symptoms with no obvious gain other than assuming the sick role and receiving attention from healthcare professionals. These patients often have extensive knowledge about medical terminology and diseases which they use to deceive healthcare providers into unnecessary investigations and interventions. The given scenario does not provide information to suggest this diagnosis.

A **Dissociative disorder** refers to conditions involving disruptions or breakdowns of memory, awareness, identity, perception etc., potentially leading to serious problems in an individual's everyday life. They are thought to primarily be caused by psychological trauma rather than organic pathology within the brain. The presented case does not exhibit such features.

Finally, **Somatisation disorder** now referred to as Somatic Symptom Disorder in DSM-5 includes one or more somatic symptoms that are distressing and/or result in significant disruption in daily life associated with excessive thoughts, feelings and behaviours related to these somatic symptoms. It differs from Hypochondriasis where the concern is more about having a disease rather than focusing on specific symptom(s). Thus this option too doesn't fit our case scenario.

Discuss (2) Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder

- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)

- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Functional neurological disorder (conversion disorder)

- typically involves loss of motor or sensory function
- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)

- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Dissociative disorder

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor
- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Next question

Textbooks

High-yield textbook

Extended textbook

Links

Royal College of Physicians

2013 Functional neurological symptoms

5 2

Report broken link

PassMedicine

Question 85 of 117

A 60-year-old male is admitted to the in-patient psychiatric unit last night. On reviewing him this morning, he is a poor historian, answering most questions minimally and stating he does not need to be here as he is deceased, and hospitals should be for living patients.

What is the name of this delusional disorder and which condition is it most commonly associated with?

De Clerambault's syndrome and Major Depressive Disorder	4%
Cotard syndrome and Major Depressive Disorder	84%
Othello syndrome and Paranoid Schizophrenia	4%
Capgras delusion and Dementia	6%
Charles de Bonnet syndrome and Bipolar Disorder	2%

Cotard syndrome is associated with severe depression

Important for me Less important

This patient is presenting with Cotard's syndrome, a rare subtype of nihilistic delusions, in which they believe they or part of them is dead or does not exist. This is seen most commonly in severe depression, but is also associated with schizophrenia.

Discuss (3) Improve

Next question

Cotard syndrome

Cotard syndrome is a rare mental disorder where the affected patient believes that they (or in some cases just a part of their body) is either dead or non-existent. This delusion is often difficult to treat and can result in significant problems due to patients stopping eating or drinking as they deem it not necessary.

PassMedicine

Question 86 of 117

A 36-year-old female is started on haloperidol for treatment-resistant schizophrenia. She presents to her general practitioner with a 1-day history of neck pain and difficulty moving the neck. On examination, she has normal observation except a mild tachycardia of 105 and neck stiffness with restricted range of motion. Her neck is involuntarily flexed to the right. She has normal facial movements.

What is the most likely diagnosis?

Neuroleptic malignant syndrome	9%
Oculogyric crisis	8%
Torticollis	66%
Tardive dyskinesia	13%
Akathisia	3%

Acute dystonia - sustained muscle contraction such as torticollis or oculogyric crisis

Important for me Less important

This patient has experienced acute dystonia secondary to commencing a typical antipsychotic - haloperidol. Torticollis or 'wry' neck can be diagnosed where there is unilateral pain and deviation of the neck with pain on palpation and restricted range of motion.

Neuroleptic malignant syndrome is a medical emergency which occurs in patients taking antipsychotics. It is characterised by altered mental state, generalised rigidity, fever, fluctuating blood pressure and high temperature. This patient has a mild tachycardia which could be explained by pain, given the otherwise normal observations and the lack of any suggestion of altered mental state it is unlikely the correct diagnosis. It should, however, be considered in patients taking antipsychotics.

An oculogyric crisis is a further example of an acute dystonia. Patients experience sustained upward deviation of the eyes, clenched jaw and hyperextension of the back/neck with torticollis. Given that this patient has no facial signs or symptoms, torticollis alone is a more appropriate answer.

Tardive dyskinesia occurs in patients on long term typical antipsychotics and is characterised by uncontrolled facial movements such as lip-smacking.

Akathisia is characterised by severe restlessness with patients having difficulty in sitting still. Patients may rock, tap their legs or cross and uncross the legs. It typically occurs with long term use of antipsychotics.

Discuss (1) Improve

Next question

Antipsychotics

Antipsychotics are a group of drugs used in the management of schizophrenia and other forms of psychosis, mania and agitation. They are usually divided into typical and atypical antipsychotics. The atypical antipsychotics were developed due to the problematic extrapyramidal side-effects which are associated with the first generation of typical antipsychotics.

	Typical antipsychotics	**Atypical antipsychotics**
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Adverse effects	Extrapyramidal side-effects and hyperprolactinaemia common	Extrapyramidal side-effects and hyperprolactinaemia less common Metabolic effects
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The rest of this section will focus on typical antipsychotics, with atypical antipsychotics covered elsewhere.

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- Parkinsonism
- acute dystonia

    - sustained muscle contraction (e.g. torticollis, oculogyric crisis)
    - may be managed with procyclidine
- akathisia (severe restlessness)
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The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Other side-effects

- antimuscarinic: dry mouth, blurred vision, urinary retention, constipation
- sedation, weight gain
- raised prolactin
    - may result in galactorrhoea
    - due to inhibition of the dopaminergic tuberoinfundibular pathway
- impaired glucose tolerance
- neuroleptic malignant syndrome: pyrexia, muscle stiffness
- reduced seizure threshold (greater with atypicals)
- prolonged QT interval (particularly haloperidol)

Next question

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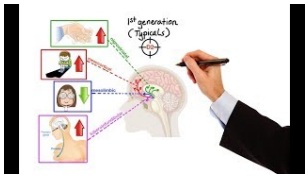
Psychoses and related disorders

Clinical Knowledge Summaries 2 1

Schizophrenia > Prescribing Information > Adverse effects

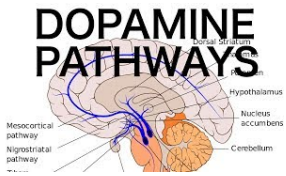
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Media



Antipsychotics

Speed Pharmacology - YouTube 38 0



Antipsychotics, Dopamine, and EPS

Dirty USMLE - YouTube 24 0



Video of patients with tardive dyskinesia

Abnormal Involuntary Movement Scale training video - YouTube 17 3

Report broken media

Score: **24.4%**

1 ✕

PassMedicine

Question 87 of 117

You are considering prescribing a tricyclic antidepressant for a patient who has not responded to two different types of selective serotonin reuptake inhibitors. Which one of the following tricyclic antidepressants is most dangerous in overdose?

Dosulepin	58%
Imipramine	12%
Clomipramine	8%
Nortriptyline	14%
Lofepramine	8%

Dosulepin - avoid as dangerous in overdose

Important for me Less important

The correct answer is **Dosulepin**. Dosulepin (also known as dothiepin) is considered the most toxic tricyclic antidepressant (TCA) in overdose. It has a narrow therapeutic index and can lead to serious complications such as cardiac arrhythmias, seizures, and even death due to its significant anticholinergic and sodium channel blocking effects. The British National Formulary (BNF) advises against its use wherever possible due to the high risk of fatal toxicity.

Imipramine is another TCA that can be dangerous in overdose, but it is generally less toxic than dosulepin. It has similar anticholinergic properties and can also cause cardiac arrhythmias and seizures, but these tend to occur at higher doses compared to dosulepin.

Clomipramine, while having significant anticholinergic effects like other TCAs, it does not have as high a risk of fatal toxicity as dosulepin. However, it still carries a risk of causing potentially life-threatening serotonin syndrome if overdosed or combined with other serotonergic drugs.

Nortriptyline is considered one of the safer TCAs in terms of overdose potential. It has less anticholinergic side effects compared to other TCAs which reduces the risk of severe outcomes such as arrhythmias and seizures when taken in excess.

Finally, **Lofepramine** is actually considered the safest TCA in overdose. It was designed to be less

cardiotoxic than other TCAs by having a lower affinity for myocardial fast sodium channels which are responsible for many of the serious cardiac side effects seen with TCA overdose. Therefore, while all TCAs carry a risk of harm if taken in large quantities, lofepramine poses the least danger.

Discuss (6) Improve

Next question

Tricyclic antidepressants

Tricyclic antidepressants (TCAs) are used less commonly now for depression due to their side-effects and toxicity in overdose. They are however used widely in the treatment of neuropathic pain, where smaller doses are typically required.

The primary mechanism by which TCAs exert their antidepressant effects is through the inhibition of the reuptake of neurotransmitters

- Serotonin (5-HT): This neurotransmitter has a pivotal role in mood regulation. Inhibition of its reuptake leads to increased concentrations in the synaptic cleft, enhancing serotonergic neurotransmission.
- Noradrenaline (NA): Similar to 5-HT, blocking the reuptake of NA increases its synaptic cleft concentration, intensifying noradrenergic neurotransmission.

As well as 5-HT and NA, tricyclics interact with number of other receptors that contribute to their side-effect profile:

- antagonism of histamine receptors
  - drowsiness
- antagonism of muscarinic receptors
  - dry mouth
  - blurred vision
  - constipation
  - urinary retention
- antagonism of adrenergic receptors
  - postural hypotension
- lengthening of QT interval

Choice of tricyclic

- low-dose amitriptyline is commonly used in the management of neuropathic pain and the prophylaxis of headache (both tension and migraine)

- lofepramine has a lower incidence of toxicity in overdose
- amitriptyline and dosulepin (dothiepin) are considered the most dangerous in overdose

More sedative	Less sedative
Amitriptyline Clomipramine Dosulepin Trazodone*	Imipramine Lofepramine Nortriptyline

*trazodone is technically a 'tricyclic-related antidepressant'

Next question

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Media



Antidepressants

Speed Pharmacology - YouTube 8 0

PassMedicine

Question 88 of 117

A 42-year-old woman presents for review. Her husband reports that she has had an argument with their son which resulted in him leaving home. Since this happened she has not been able to speak. Clinical examination of her throat and chest is unremarkable. Which one of the following terms best describes this presentation?

Aprosodia	2%
Schizophasia	1%
Expressive aphasia	6%
Akinetic mutism	14%
Psychogenic aphonia	78%

Psychogenic aphonia is considered to be a form of conversion disorder. Please see the link for more details.

Discuss (3) Improve

Next question

Aphonia

Aphonia describes the inability to speak. Causes include:

- recurrent laryngeal nerve palsy (e.g. Post-thyroidectomy)
- psychogenic

Next question

PassMedicine

Question 89 of 117

A 73-year-old male patient who lives alone presents with recurrent episodes of pleasant visual hallucinations but no clouding of consciousness or confusion. He tells you he knows the hallucinations are not real. He is normally fit and well with the exception of visual impairment.

Given the likely diagnosis, what ophthalmic condition is he most likely to suffer from?

Glaucoma	5%
Diabetic retinopathy	1%
Retinal detachment	4%
Age-related macular degeneration	80%
Cataract	9%

Age-related macular degeneration is associated with Charles-Bonnet syndrome

Important for me Less important

This patient has Charles-Bonnet syndrome (CBS) as evidenced by visual hallucinations with normal insight on a background of visual impairment. He also lives alone which could be another risk factor for CBS if this leads to him becoming socially isolated. 11-15% of patient with severe visual impairment are thought to have coexisting CBS and experience recurrent, persistent or episodic visual or auditory hallucinations. The most common ophthalmological condition associated with CBS is age-related macular degeneration and hence this is the correct answer.

Glaucoma and cataract are the next most common causes of visual impairment associated with CBS. CBS can, however, occur in any ophthalmic condition making 1,2,3 and 5 all possible but less common causes than age-related macular degeneration.

It is important to note that the hallucinations are related to failing eyesight and are not a sign of an underlying psychiatric condition.

Discuss (3) Improve

Next question

Charles-Bonnet syndrome

Charles-Bonnet syndrome (CBS) is characterised by persistent or recurrent complex hallucinations (usually visual or auditory), occurring in clear consciousness. This is generally against a background of visual impairment (although visual impairment is not mandatory for a diagnosis). Insight is usually preserved. This must occur in the absence of any other significant neuropsychiatric disturbance.

Risk factors include:

- Advanced age
- Peripheral visual impairment
- Social isolation
- Sensory deprivation
- Early cognitive impairment

CBS is equally distributed between sexes and does not show any familial predisposition. The most common ophthalmological conditions associated with this syndrome are age-related macular degeneration, followed by glaucoma and cataract.

Well-formed complex visual hallucinations are thought to occur in 10-30 per cent of individuals with severe visual impairment. Prevalence of CBS in visually impaired people is thought to be between 11 and 15 per cent.

Around a third find the hallucinations themselves an unpleasant or disturbing experience. In a large study published in the British Journal of Ophthalmology, 88% had CBS for 2 years or more, resolving in only 25% at 9 years (thus it is not generally a transient experience).

Cox (2014) Negative outcome Charles Bonnet Syndrome. Br J Ophthalmol.

Next question

PassMedicine

Question 90 of 117

A 63-year-old man presents to his GP for support following the breakdown of his marriage. He has been consuming a bottle of vodka a day for the last month and states that he drinks upon waking in the morning to relieve his feelings of anxiety, however, he has not drunk this morning and now feels unwell.

He is markedly tremulous when sitting, sweating profusely and reports some hallucinations at times when he has abstained from alcohol. His GP arranges for an ambulance and the patient agrees to attend the hospital for further assessment. Whilst waiting for the ambulance to arrive, the patient collapses in the waiting room and has a tonic-clonic seizure. His seizure resolves spontaneously after 45 seconds and the ambulance team escorts him to hospital.

Which of the following describes the most appropriate treatment plan for this patient?

He can be commenced on an outpatient detoxification regime	2%
The patient has alcoholic hallucinosis and requires a psychiatric review	8%
He requires an inpatient detoxification regime with community follow up	76%
He can be discharged 24 hours post seizure if no further seizures with no further input	6%
None of the above	7%

Patients with a history of complex withdrawals from alcohol (i.e. delirium tremens, seizures, blackouts) should be admitted to hospital for monitoring until withdrawals stabilised

Important for me Less important

This patient presents with alcohol dependency and complex withdrawal symptoms i.e. history of hallucinations suggestive of delirium tremens (hallucinations occur with abstinence from alcohol) and withdrawal seizures.

Alcoholic hallucinosis is characterised by auditory hallucinations, delusions and changes in mood during or following chronic alcohol misuse, with symptoms mimicking those seen in patients with schizophrenia. Our patient describes acute symptoms and there is no evidence of delusions, hence alcoholic hallucinosis is unlikely.

All patients with complex withdrawals require a longer period of assessment and should ideally complete a detoxification regime as an inpatient.

Outpatient detoxification is contraindicated in patients with a history of complex withdrawals.

Discuss (2) Improve

Next question

Alcohol withdrawal

Mechanism

- chronic alcohol consumption enhances GABA mediated inhibition in the CNS (similar to benzodiazepines) and inhibits NMDA-type glutamate receptors
- alcohol withdrawal is thought to be lead to the opposite (decreased inhibitory GABA and increased NMDA glutamate transmission)

Features

- symptoms start at 6-12 hours: tremor, sweating, tachycardia, anxiety
- peak incidence of seizures at 36 hours
- peak incidence of delirium tremens is at 48-72 hours: coarse tremor, confusion, delusions, auditory and visual hallucinations, fever, tachycardia

Management

- patients with a history of complex withdrawals from alcohol (i.e. delirium tremens, seizures, blackouts) should be admitted to hospital for monitoring until withdrawals stabilised
- first-line: long-acting benzodiazepines e.g. chlordiazepoxide or diazepam. Lorazepam may be preferable in patients with hepatic failure. Typically given as part of a reducing dose protocol
- carbamazepine also effective in treatment of alcohol withdrawal
- phenytoin is said not to be as effective in the treatment of alcohol withdrawal seizures

Next question

PassMedicine

Question 91 of 117

A 44-year-old man presents to his general practitioner with galactorrhoea and loss of libido. His past medical history includes schizophrenia, hypertension and gastro-oesophageal reflux disease. He is on lansoprazole, amlodipine and clozapine. Aripiprazole was recently discontinued due to lack of response. He smokes 10 cigarettes daily and is currently unemployed.

Examination reveals mild gynaecomastia and is otherwise unremarkable.

Blood tests:

Prolactin	5000 mIU/L	(<325)

Based on the clinical history, which of the options from the list below is the most likely cause of the clinical presentation?

Amlodipine	2%
Aripiprazole	21%
Clozapine	52%
Lansoprazole	2%
Prolactinoma	23%

Hyperprolactinaemia is uncommon with certain atypical antipsychotics - consider other causes such as prolactinoma if prolactin raised

Important for me Less important

Prolactinoma is the correct answer. This is the only option listed that causes an elevated prolactin level. Symptoms of hyperprolactinaemia include loss of libido, galactorrhoea and gynaecomastia. These may precede pressure symptoms (e.g. headache) and clinical findings of visual fields defects in pituitary macroadenomas.

Aripiprazole is incorrect. This atypical antipsychotic is less associated with the development of high prolactin levels when compared to other atypical antipsychotics. Furthermore, we would certainly not expect to see a prolactin level of 5000 mIU/L, which is more typical of a prolactinoma.

Clozapine is incorrect. This atypical antipsychotic is rarely associated with hyperprolactinaemia. If it is, the rise tends to be more modest i.e. 2x the upper limit of normal. A level of 5000 mIU/L makes a prolactinoma more likely.

Lansoprazole is incorrect. It is H2 receptor antagonists (e.g. cimetidine) rather than proton-pump inhibitors that are typically associated with hyperprolactinaemia.

Amlodipine is incorrect. Verapamil is the calcium channel blocker that is associated with hyperprolactinaemia.

Discuss (5) Improve

Next question

Atypical antipsychotics

Atypical antipsychotics should now be used first-line in patients with schizophrenia, according to 2005 NICE guidelines. The main advantage of the atypical agents is a significant reduction in extrapyramidal side-effects.

Adverse effects of atypical antipsychotics

- weight gain
- clozapine is associated with agranulocytosis (see below)
- hyperprolactinaemia

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Examples of atypical antipsychotics

- clozapine
- olanzapine: higher risk of dyslipidemia and obesity
- risperidone
- quetiapine
- amisulpride
- aripiprazole: generally good side-effect profile, particularly for prolactin elevation

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Question 92 of 117

You are looking after a 36-year-old female patient on the ward when you become concerned regarding her behavior towards you. She has made a number of sexually inappropriate comments and on your last review she was wearing seductive underwear. She is often disruptive on the ward making a scene and easily encouraged by other patients. Your consultant advises you to avoid seeing the patient on her own and that he is aware the patient has a personality disorder.

What is her most likely diagnosis?

Histrionic personality disorder	76%
Schizoid personality disorder	6%
Schizotypal personality disorder	5%
Antisocial personality disorder	4%
Borderline personality disorder	10%

Histrionic personality disorder is characterised by inappropriate sexual seductiveness, suggestibility and intense relationships

Important for me Less important

The correct answer is 1 - histrionic personality disorder. This condition is seen in patients who crave being the center of attention, can be sexually inappropriate in behavior or appearance and are highly suggestible. They can develop intense relationships but at other times read more into the intimacy of a relationship that is actually there.

Option 2 is incorrect. Patients with schizoid personality disorder tend to have a lack of interest in sexual interactions making this an unlikely diagnosis based on the patient in question. They are often cold and lack close friendships, preferring to spend time alone.

Patients with schizotypal personality disorder can have odd/eccentric beliefs or behavior. Similarly to the patient in this question they can be inappropriate however struggle to make friends and can be paranoid/suspicious making this less likely the correct answer.

Patients with antisocial personality disorder often fail to comply to social norms in terms of lawful

behavior resulting in multiple arrests. They are prone to getting into fights due to aggressiveness and can be deceitful particularly when seeking material gain. They can have a disregard for safety and lack remorse. This does not describe the patient in the stem.

Option 5 is also incorrect, borderline personality disorder is characterised by emotional instability, impulsive behavior, feelings of emptiness and recurrent attempts at self harm. Similarly to histrionic personality disorder they also have intense relationships however these are often unstable.

Discuss (4) Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	Cluster B: 'Dramatic, Emotional, or Erratic'	Cluster C: 'Anxious and Fearful'
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others
- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour

- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values
- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning
- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

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Cluster A personality disorders (paranoid, schizoid, schizotypal)

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Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

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Borderline Personality Disorder Explained

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Cluster B personality disorders (antisocial, borderline, histrionic, narcissistic)

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Question 93 of 117

A 32-year-old man presents with several months of worsening low mood and behaviours that he feels he cannot control. He often feels distressed and finds that the only way to obtain some relief is to repeat a certain phrase in his mind. He has no significant past medical history and is physically well.

What is this symptom an example of?

Compulsion	61%
Insertion	6%
Intrusion	7%
Obsession	25%
Withdrawal	1%

An obsession is an intrusive, unpleasant and unwanted thought. A compulsion is a senseless action taken to reduce the anxiety caused by the obsession

Important for me Less important

The act of a repetitive behaviour that a patient feels driven to perform, whether mental or physical, is a **compulsion**. Whilst this is a mental compulsion - repeating a phrase in the mind until feeling calmer - a physical compulsion may be an act such as repeatedly washing hands, or checking that a door is locked, until satisfied.

Thought **insertion** is the feeling of one's thoughts not being one's own - belonging to someone else and having been inserted into the mind. This does not fit with the scenario presented above. Insertion is a feature of schizophrenia.

An **intrusive** thought is an unwelcome, involuntary thought. These may be experienced by the general population, but if frequent and distressing, may develop into obsessions, which are seen as a more severe form of intrusive thought.

Obsessions, as mentioned above, are unwanted, intrusive thoughts that repeatedly enter the mind. These cause distress/discomfort. Coupled with compulsions, these form part of obsessive-

compulsive disorder (OCD).

Thought **withdrawal** is a delusion, like insertion, where the patient believes that thoughts have been removed from their mind by a third-party. This is found in schizophrenia.

Discuss (1) Improve

Next question

Obsessive-compulsive disorder

Obsessive-compulsive disorder (OCD) is characterised by the presence of either obsessions or compulsions, but commonly both. The symptoms can cause significant functional impairment and/ or distress.

An obsession is defined as an unwanted intrusive thought, image or urge that repeatedly enters the person's mind. Compulsions are repetitive behaviours or mental acts that the person feels driven to perform. A compulsion can either be overt and observable by others, such as checking that a door is locked, or a covert mental act that cannot be observed, such as repeating a certain phrase in one's mind.

It is thought that 1 to 3% of the population have OCD.

Risk factors

- family history
- age: peak onset is between 10-20 years
- pregnancy/postnatal period
- history of abuse, bullying, neglect

Management

- NICE recommend classifying impairment into mild, moderate or severe
  - they recommend the use of the Y-BOCS scale
  - an example of 'severe' OCD would be someone who spends > 3 hours a day on their obsessions/compulsions, has severe interference/distress and has very little control/resistance
- If functional impairment is mild
  - low-intensity psychological treatments: cognitive behavioural therapy (CBT) including exposure and response prevention (ERP)
  - If this is insufficient or can't engage in psychological therapy, then offer a choice of either a course of an SSRI or more intensive CBT (including ERP)

- If moderate functional impairment
  - offer a choice of either a course of an SSRI (any SSRI for OCD but fluoxetine specifically for body dysmorphic disorder) or more intensive CBT (including ERP)
  - consider clomipramine (as an alternative first-line drug treatment to an SSRI) if the person prefers clomipramine or has had a previous good response to it, or if an SSRI is contraindicated
- If severe functional impairment
  - refer to the secondary care mental health team for assessment
  - whilst awaiting assessment - offer combined treatment with an SSRI and CBT (including ERP) or consider clomipramine as an alternative as above

Notes on treatments

- ERP is a psychological method which involves exposing a patient to an anxiety provoking situation (e.g. for someone with OCD, having dirty hands) and then stopping them engaging in their usual safety behaviour (e.g. washing their hands). This helps them confront their anxiety and the habituation leads to the eventual extinction of the response
- if treatment with SSRI is effective then continue for at least 12 months to prevent relapse and allow time for improvement
- compared to depression, the SSRI usually requires a higher dose and a longer duration of treatment (at least 12 weeks) for an initial response

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What is Obsessive-Compulsive Disorder (OCD)?

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Question 94 of 117

A 54-year-old man with a history of depression presents for review. He was started on fluoxetine eight weeks ago and is now requesting to stop his medication as he feels so well. What should be recommended regarding his treatment?

It should be stopped straight away	7%
It should be continued for at least another 6 weeks	15%
It should be continued for at least another 3 months	10%
It should be continued for at least another 6 months	65%
It should be continued for at least another 12 months	3%

Antidepressants should be continued for at least 6 months after remission of symptoms to decrease risk of relapse

Important for me Less important

This greatly reduces the risk of relapse. Patients should be reassured that antidepressants are not addictive.

Discuss (4) Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants

- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change

- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

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2022 Depression in adults: treatment and management

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Question 95 of 117

A 72-year-old man who is having trouble sleeping is prescribed temazepam. What is the mechanism of action of temazepam?

Inhibits the effect of acetylcholine	3%
Enhances the effect of gamma-aminobutyric acid	62%
Inhibits the effect gamma-aminobutyric acid	26%
Inhibits the effect of glutamate	6%
Inhibits the effect of noradrenaline	3%

Benzodiazepines enhance the effect of GABA, the main inhibitory neurotransmitter

Important for me Less important

The correct answer is **Enhances the effect of gamma-aminobutyric acid**. Temazepam belongs to a class of drugs known as benzodiazepines. Its mechanism of action involves enhancing the effect of gamma-aminobutyric acid (GABA), an inhibitory neurotransmitter in the brain. This enhancement is achieved by increasing the frequency of chloride channel opening within the GABA-A receptor complex, leading to hyperpolarisation of neurons and ultimately decreased neuronal excitability.

Discussing the incorrect options:

Inhibits the effect of acetylcholine is not correct. Anticholinergic drugs inhibit the effects of acetylcholine, a neurotransmitter involved in many functions including muscle movement, heart rate regulation, learning and memory. Examples include atropine and scopolamine. Temazepam does not have this mechanism.

Inhibits the effect gamma-aminobutyric acid is also incorrect. Drugs that inhibit GABA usually increase neuronal activity rather than decrease it, which can lead to seizures or anxiety rather than sedation. An example would be flumazenil, a GABA antagonist used as an antidote for benzodiazepine overdose.

Inhibits the effect of glutamate is not correct either. Glutamate is an excitatory neurotransmitter

in CNS and its inhibition would indeed result in reduced neuronal activity similar to enhancing GABA's effects. However, temazepam doesn't work by inhibiting glutamate; drugs that do this are typically NMDA receptor antagonists like memantine used in Alzheimer's disease treatment.

Finally, **Inhibits the effect of noradrenaline** is also incorrect. Noradrenaline (norepinephrine) inhibitors are typically used as antihypertensives or antidepressants such as beta-blockers or selective noradrenaline reuptake inhibitors (NARIs). They do not primarily induce sleep or reduce anxiety which are key therapeutic effects of temazepam.

Discuss | Improve

Next question

Benzodiazepines

Benzodiazepines enhance the effect of the inhibitory neurotransmitter gamma-aminobutyric acid (GABA) by increasing the **frequency** of chloride channels. They therefore are used for a variety of purposes:

- sedation
- hypnotic
- anxiolytic
- anticonvulsant
- muscle relaxant

Patients commonly develop a tolerance and dependence to benzodiazepines and care should therefore be exercised on prescribing these drugs. The Committee on Safety of Medicines advises that benzodiazepines are only prescribed for a short period of time (2-4 weeks).

The BNF gives advice on how to withdraw a benzodiazepine. The dose should be withdrawn in steps of about 1/8 (range 1/10 to 1/4) of the daily dose every fortnight. A suggested protocol for patients experiencing difficulty is given:

- switch patients to the equivalent dose of diazepam
- reduce dose of diazepam every 2-3 weeks in steps of 2 or 2.5 mg
- time needed for withdrawal can vary from 4 weeks to a year or more

If patients withdraw too quickly from benzodiazepines they may experience benzodiazepine withdrawal syndrome, a condition very similar to alcohol withdrawal syndrome. This may occur up to 3 weeks after stopping a long-acting drug. Features include:

- insomnia
- irritability
- anxiety
- tremor
- loss of appetite
- tinnitus
- perspiration
- perceptual disturbances
- seizures

$GABA_A$ drugs

- benzodiazipines increase the **frequency** of chloride channels
- barbiturates increase the **duration** of chloride channel opening

Frequently **Ben**d - **Dur**ing **Barb**eque

...or...

Barbi**durat**es increase **durat**ion & **Fre**ndodiazepines increase **fre**quency

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Question 96 of 117

A 23-year-old woman presents to her GP with troubling symptoms. Eight weeks ago, she was involved in a severe road traffic accident. Although physically well after the accident, she reports experiencing flashbacks since then, being overly vigilant when crossing the road, and generally having difficulty focusing at work.

Which of the following features would best support the likely diagnosis?

Delusional beliefs	7%
Emotional detachment	54%
Excessive sleep	6%
Nystagmus	4%
Paranoid ideation	30%

Common features of PTSD

- re-experiencing e.g. flashbacks, nightmares
- avoidance e.g. avoiding people or situations
- hyperarousal e.g.hypervigilance, sleep problems

Important for me Less important

The correct answer is emotional detachment. The diagnosis here is that of post-traumatic stress disorder (PTSD), with these symptoms being present for over 1 month following a traumatic experience. Patients are often emotionally numbed - demonstrating an inability to experience feelings fully, and generally feeling detached emotionally.

Delusional beliefs do not usually manifest in PTSD. If she were displaying signs of this, it would be prudent to consider an alternative diagnosis, as this is a psychotic feature.

Excessive sleep is not usually part of PTSD - the opposite is normally true. Patients have difficulty sleeping, often wake up during the night, and experience nightmares.

Nystagmus is not associated with PTSD. There is, however, a link between eyes and PTSD - the

current conventional therapy for PTSD is eye movement desensitisation and reprocessing therapy.

Paranoid ideation is also not usually a feature of PTSD. If this were being displayed, alternative diagnoses should be considered.

Discuss (3) Improve

Next question

Post-traumatic stress disorder

Post-traumatic stress disorder (PTSD) can develop in people of any age following a traumatic event, for example, a major disaster or childhood sexual abuse. It encompasses what became known as 'shell shock' following the first world war. One of the DSM-IV diagnostic criteria is that symptoms have been present for more than one month.

Features

- re-experiencing: flashbacks, nightmares, repetitive and distressing intrusive images
- avoidance: avoiding people, situations or circumstances resembling or associated with the event
- hyperarousal: hypervigilance for threat, exaggerated startle response, sleep problems, irritability and difficulty concentrating
- emotional numbing - lack of ability to experience feelings, feeling detached

from other people

- depression
- drug or alcohol misuse
- anger
- unexplained physical symptoms

Management

- following a traumatic event single-session interventions (often referred to as debriefing) are not recommended
- watchful waiting may be used for mild symptoms lasting less than 4 weeks
- military personnel have access to treatment provided by the armed forces
- trauma-focused cognitive behavioural therapy (CBT) or eye movement desensitisation and reprocessing (EMDR) therapy may be used in more severe cases
- drug treatments for PTSD should not be used as a routine first-line treatment for adults. If drug treatment is used then venlafaxine or a selective serotonin reuptake inhibitor (SSRI),

such as sertraline should be tried. In severe cases, NICE recommends that risperidone may be used

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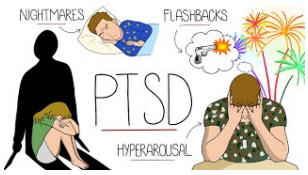
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2018 PTSD guidelines

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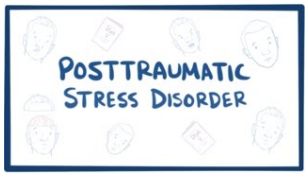
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Post-traumatic stress disorder

Rhesus Medicine - YouTube 3 0



Post-traumatic Stress Disorder (PTSD)

Osmosis - YouTube

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Question 97 of 117

A 25-year-old man with a history of schizophrenia is prescribed olanzapine. Which one of the following adverse effects is he most likely to experience?

Anorexia	1%
Parkinsonism	5%
Hypertension	2%
Weight gain	82%
Agranulocytosis	11%

Weight gain is an extremely common adverse effect of atypical antipsychotics such as olanzapine

Discuss (1) | Improve

Next question

Atypical antipsychotics

Atypical antipsychotics should now be used first-line in patients with schizophrenia, according to 2005 NICE guidelines. The main advantage of the atypical agents is a significant reduction in extrapyramidal side-effects.

Adverse effects of atypical antipsychotics

- weight gain
- clozapine is associated with agranulocytosis (see below)
- hyperprolactinaemia

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Examples of atypical antipsychotics

- clozapine
- olanzapine: higher risk of dyslipidemia and obesity
- risperidone
- quetiapine
- amisulpride
- aripiprazole: generally good side-effect profile, particularly for prolactin elevation

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Clozapine

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Question 98 of 117

A 38-year-old man is reviewed by his general practitioner. He reports difficulties in maintaining positive relationships with colleagues.

On further questioning, it becomes clear that the man has a very strict value system and moral code. He is inflexible with respect to different beliefs and work practices and this inflexibility makes it difficult to form relationships with colleagues, collaborate or delegate.

What type of personality disorder best describes this patient?

Antisocial personality disorder	19%
Borderline personality disorder	7%
Narcissistic personality disorder	15%
Obsessive-compulsive personality disorder	52%
Paranoid personality disorder	6%

Patients with obsessive-compulsive personality can be rigid with respect to morals, ethics and values and often are reluctant to surrender work to others

Important for me Less important

An obsessive-compulsive personality disorder is correct. Patients with this personality disorder are very rigid with respect to morals, ethics and values and are reluctant to surrender work to others, as in this case. Other features are preoccupation with details, rules, lists and orders and perfectionism impairing the ability to complete tasks.

An antisocial personality disorder is incorrect. This personality disorder is characterized by aggression, repeated unlawful behaviour, deception and aggression.

A borderline personality disorder is incorrect. This personality disorder is characterized by an unstable self-image, unstable interpersonal relationships, efforts to avoid abandonment and chronic feelings of emptiness.

A paranoid personality disorder is incorrect. This personality disorder is characterized by

hypersensitivity to insult, an unwarranted tendency to question the loyalty of friends and preoccupation with conspiratorial beliefs and hidden meaning.

The narcissistic personality is incorrect. This is characterized by a grandiose sense of self-importance, sense of entitlement, lack of empathy and preoccupation with fantasies of unlimited success, power or beauty.

Discuss (2) Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	Cluster B: 'Dramatic, Emotional, or Erratic'	Cluster C: 'Anxious and Fearful'
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others
- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities

- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness

- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values
- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning
- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

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Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2



Cluster B personality disorders (antisocial, borderline, histrionic, narcissistic)

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Question 99 of 117

A 42-year-old man with mental health issues is reviewed. The patient has experienced symptoms in keeping with severe depression for several months and he reports little improvement with cognitive behaviour therapy.

There has been a significant deterioration in his mood and admits to a failed overdose a few weeks ago and he reports still having suicidal thoughts occasionally. Given his condition it is recommended he commence an anti-depressant but one with a lower risk of toxicity in overdose. He has no other medical conditions and is not on any medications.

What medication should be avoided?

Amoxapine	3%
Desipramine	7%
Dosulepin	42%
Lofepramine	26%
Nortriptyline	23%

Dosulepin - avoid as dangerous in overdose

Important for me Less important

Dosulepin, a tricyclic antidepressant, was previously prescribed for managing depression and anxiety. However, due to it posing a significant risk in overdose, it is rarely used and not recommended particularly as a first-line agent or in patients with a high risk of overdose. In excessive amounts, dosulepin can lead to life-threatening complications, including cardiac arrhythmias, seizures, and respiratory depression. Its toxicity arises from the blockade of various receptors, such as histaminic, cholinergic, and adrenergic receptors. The narrow therapeutic index increases the likelihood of severe adverse effects even with a slight overdose.

Amoxapine is a tetracyclic antidepressant used to treat depressive disorders. It possesses a unique chemical structure, combining tricyclic and neuroleptic properties. One notable aspect of amoxapine is its relatively safer drug profile in overdose compared to some other tricyclic antidepressants. In instances of overdose, amoxapine tends to produce milder toxicity symptoms.

This is attributed to its metabolite, amoxapine-2-OH, which acts as a serotonin reuptake inhibitor, potentially mitigating the severity of adverse effects associated with overdose.

Desipramine is a tricyclic antidepressant primarily used to treat depressive disorders. Desipramine has a relatively safer drug profile in overdose compared to some other tricyclic antidepressants attributed to its selective inhibition of norepinephrine reuptake, which leads to a milder side effect profile and reduced toxicity. Desipramine's lower affinity for receptors associated with adverse effects, such as anticholinergic and cardiovascular effects, contributes to its decreased risk of severe complications in overdose situations.

Lofepramine, a tricyclic antidepressant, is known for its relatively safer drug profile in overdose compared to some other tricyclic antidepressants. Its active metabolite, desipramine, is produced in smaller amounts, leading to reduced toxicity. Lofepramine's selective inhibition of norepinephrine reuptake, coupled with a lower affinity for receptors associated with adverse effects, contributes to its diminished risk of severe complications in overdose.

Nortriptyline, a tricyclic antidepressant, has a relatively safer drug profile in overdose when compared to other tricyclic antidepressants, primarily attributed to its selective inhibition of norepinephrine reuptake, leading to a more favourable side effect profile and reduced toxicity. Nortriptyline's lower affinity for receptors associated with adverse effects, such as anticholinergic and cardiovascular effects, contributes to its diminished risk of severe complications in overdose.

Discuss Improve

Next question

Tricyclic antidepressants

Tricyclic antidepressants (TCAs) are used less commonly now for depression due to their side-effects and toxicity in overdose. They are however used widely in the treatment of neuropathic pain, where smaller doses are typically required.

The primary mechanism by which TCAs exert their antidepressant effects is through the inhibition of the reuptake of neurotransmitters

- Serotonin (5-HT): This neurotransmitter has a pivotal role in mood regulation. Inhibition of its reuptake leads to increased concentrations in the synaptic cleft, enhancing serotonergic neurotransmission.
- Noradrenaline (NA): Similar to 5-HT, blocking the reuptake of NA increases its synaptic cleft concentration, intensifying noradrenergic neurotransmission.

As well as 5-HT and NA, tricyclics interact with number of other receptors that contribute to their side-effect profile:

- antagonism of histamine receptors
  - drowsiness
- antagonism of muscarinic receptors
  - dry mouth
  - blurred vision
  - constipation
  - urinary retention
- antagonism of adrenergic receptors
  - postural hypotension
- lengthening of QT interval

Choice of tricyclic

- low-dose amitriptyline is commonly used in the management of neuropathic pain and the prophylaxis of headache (both tension and migraine)
- lofepramine has a lower incidence of toxicity in overdose
- amitriptyline and dosulepin (dothiepin) are considered the most dangerous in overdose

More sedative	**Less sedative**
Amitriptyline Clomipramine Dosulepin Trazodone*	Imipramine Lofepramine Nortriptyline

*trazodone is technically a 'tricyclic-related antidepressant'

Next question

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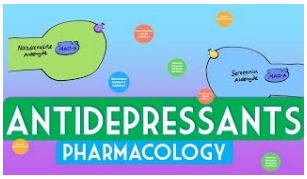
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Media



Antidepressants

Speed Pharmacology - YouTube 8 0



Antidepressants Pharmacology

Soton Brain Hub - YouTube 4 0

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1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
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9 ✗
10 ✗

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Question 100 of 117

A 34-year-old ex-soldier with a history of post-traumatic stress disorder returns for review. He has had a course of eye movement desensitisation and reprocessing therapy which was not helpful and is reluctant to try cognitive behavioural therapy. Of the options listed, which medication may be useful in such patients?

Haloperidol	6%
Diazepam	8%
Venlafaxine	78%
Topiramate	3%
Bupropion	4%

If CBT or EMDR therapy are ineffective in PTSD, the first line drug treatments are venlafaxine or a SSRI

Important for me Less important

The correct answer in this case is **Venlafaxine**. Venlafaxine is a serotonin-norepinephrine reuptake inhibitor (SNRI) that has been shown to be effective in the treatment of post-traumatic stress disorder (PTSD). It works by increasing the levels of serotonin and norepinephrine in the brain, which can help improve mood, reduce anxiety, and alleviate symptoms associated with PTSD. According to UK guidelines, selective serotonin reuptake inhibitors (SSRIs) such as sertraline and paroxetine are considered first-line treatments for PTSD; however, SNRIs like venlafaxine can also be used if SSRIs are not effective or not tolerated.

Haloperidol is an antipsychotic medication that is primarily used to treat schizophrenia and other psychotic disorders. While it may have some limited use in managing agitation or aggression associated with PTSD, it does not directly address the core symptoms of PTSD and would not be considered a first-line treatment option.

Diazepam is a benzodiazepine commonly used for short-term management of anxiety disorders. However, benzodiazepines are generally not recommended for long-term treatment of PTSD due to their potential for dependence and tolerance. Additionally, they do not address the underlying issues contributing to PTSD and may even interfere with the effectiveness of psychological

therapies like cognitive behavioural therapy.

Topiramate is an anticonvulsant medication that has been studied as a potential treatment for PTSD but has shown mixed results in clinical trials. It is primarily used to treat epilepsy and migraine headaches. Topiramate has not been established as a first-line treatment for PTSD in UK guidelines.

Bupropion is an atypical antidepressant that acts on dopamine and norepinephrine neurotransmitters. It is primarily used to treat major depressive disorder and as a smoking cessation aid. While it may have some off-label use in anxiety disorders, it has not been well-established as an effective treatment for PTSD and would not be considered a first-line option.

Discuss | Improve

Next question

Post-traumatic stress disorder

Post-traumatic stress disorder (PTSD) can develop in people of any age following a traumatic event, for example, a major disaster or childhood sexual abuse. It encompasses what became known as 'shell shock' following the first world war. One of the DSM-IV diagnostic criteria is that symptoms have been present for more than one month.

Features

- re-experiencing: flashbacks, nightmares, repetitive and distressing intrusive images
- avoidance: avoiding people, situations or circumstances resembling or associated with the event
- hyperarousal: hypervigilance for threat, exaggerated startle response, sleep problems, irritability and difficulty concentrating
- emotional numbing - lack of ability to experience feelings, feeling detached

from other people

- depression
- drug or alcohol misuse
- anger
- unexplained physical symptoms

Management

- following a traumatic event single-session interventions (often referred to as debriefing) are not recommended

- watchful waiting may be used for mild symptoms lasting less than 4 weeks
- military personnel have access to treatment provided by the armed forces
- trauma-focused cognitive behavioural therapy (CBT) or eye movement desensitisation and reprocessing (EMDR) therapy may be used in more severe cases
- drug treatments for PTSD should not be used as a routine first-line treatment for adults. If drug treatment is used then venlafaxine or a selective serotonin reuptake inhibitor (SSRI), such as sertraline should be tried. In severe cases, NICE recommends that risperidone may be used

Next question

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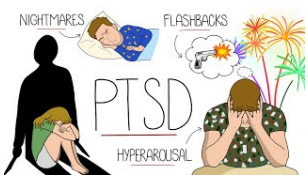
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2018 PTSD guidelines

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Post-traumatic stress disorder

Rhesus Medicine - YouTube 3 0

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Question 101 of 117

Which one of the following features is least recognised in long-term lithium use?

Alopecia	33%
Weight gain	15%
Fine tremor	14%
Goitre	15%
Diarrhoea	23%

All the above side-effects, with the exception of alopecia, may be seen in patients taking lithium

Discuss (6) | Improve

Next question

Lithium

Lithium is mood stabilising drug used most commonly prophylactically in bipolar disorder but also as an adjunct in refractory depression. It has a very narrow therapeutic range (0.4-1.0 mmol/L) and a long plasma half-life being excreted primarily by the kidneys.

Mechanism of action - not fully understood, two theories:

- interferes with inositol triphosphate formation
- interferes with cAMP formation

Adverse effects

- nausea/vomiting, diarrhoea
- fine tremor
- nephrotoxicity: polyuria, secondary to nephrogenic diabetes insipidus
- thyroid enlargement, may lead to hypothyroidism
- ECG: T wave flattening/inversion

- weight gain
- idiopathic intracranial hypertension
- leucocytosis
- hyperparathyroidism and resultant hypercalcaemia

Monitoring of patients on lithium therapy

- inadequate monitoring of patients taking lithium is common - NICE and the National Patient Safety Agency (NPSA) have issued guidance to try and address this. As a result it is often an exam hot topic
- when checking lithium levels, the sample should be taken 12 hours post-dose
- after starting lithium levels should be performed weekly and after each dose change until concentrations are stable
- once established, lithium blood level should 'normally' be checked every 3 months
- after a change in dose, lithium levels should be taken a week later and weekly until the levels are stable.
- thyroid and renal function should be checked every 6 months
- patients should be issued with an information booklet, alert card and record book

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Lithium

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Question 102 of 117

A patient you are looking after is started on imipramine for depression. Which combination of side-effects is most likely to be seen in a patient taking this class of antidepressants?

Dry mouth + urinary frequency	20%
Hypertension + sweating	3%
Gastrointestinal bleeding + dyspepsia	9%
Headache + myoclonus	3%
Blurred vision + dry mouth	64%

These antimuscarinic side-effects are more common with imipramine than other types of tricyclic antidepressants.

Discuss (3) | Improve

Next question

Tricyclic antidepressants

Tricyclic antidepressants (TCAs) are used less commonly now for depression due to their side-effects and toxicity in overdose. They are however used widely in the treatment of neuropathic pain, where smaller doses are typically required.

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  - dry mouth
  - blurred vision
  - constipation
  - urinary retention
- antagonism of adrenergic receptors
  - postural hypotension
- lengthening of QT interval

Choice of tricyclic

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More sedative	**Less sedative**
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*trazodone is technically a 'tricyclic-related antidepressant'

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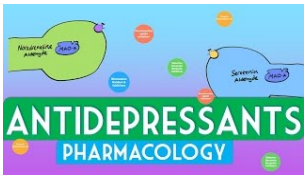
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Antidepressants

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Question 103 of 117

A 82-year-old female who has glaucoma starts to experience visual hallucinations which include seeing goldfish, black boxes and mud sliding down shelves. She is completely blind in the right eye and only partially sighted in the left eye. What is the most likely diagnosis?

Schizophrenia	2%
Delirium	1%
Charles Bonnet syndrome	90%
Peduncular hallucinosis	5%
Anton's syndrome	2%

In a patient who is partially or fully blind and experiencing visual hallucinations, Charles Bonnet syndrome should be considered. Delirium and schizophrenia also present with visual hallucinations, but with the history of blindness, Charles Bonnet syndrome is the more likely diagnosis.

Anton's syndrome is is a rare symptom of brain damage occurring in the occipital lobe characterised by cortical blindness, but will not accept they are blind despite being told that they are. They don't have visual hallucinations

Peduncular hallucinosis is a rare neurological disorder that causes vivid visual hallucinations in dark environments which last for several minutes. They typically occur after a midbrain stroke. This diagnosis is less likely given the history of blindness.

Discuss (4) | Improve

Next question

Charles-Bonnet syndrome

Charles-Bonnet syndrome (CBS) is characterised by persistent or recurrent complex hallucinations (usually visual or auditory), occurring in clear consciousness. This is generally against a background of visual impairment (although visual impairment is not mandatory for a diagnosis). Insight is usually preserved. This must occur in the absence of any other significant neuropsychiatric disturbance.

Risk factors include:

- Advanced age
- Peripheral visual impairment
- Social isolation
- Sensory deprivation
- Early cognitive impairment

CBS is equally distributed between sexes and does not show any familial predisposition. The most common ophthalmological conditions associated with this syndrome are age-related macular degeneration, followed by glaucoma and cataract.

Well-formed complex visual hallucinations are thought to occur in 10-30 per cent of individuals with severe visual impairment. Prevalence of CBS in visually impaired people is thought to be between 11 and 15 per cent.

Around a third find the hallucinations themselves an unpleasant or disturbing experience. In a large study published in the British Journal of Ophthalmology, 88% had CBS for 2 years or more, resolving in only 25% at 9 years (thus it is not generally a transient experience).

Cox (2014) Negative outcome Charles Bonnet Syndrome. Br J Ophthalmol.

Next question

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Question 104 of 117

A patient with a history of depression presents for review. Which one of the following suggests an increased risk of suicide?

Being 25-years-old	8%
History of arm cutting	85%
Being married	1%
Female sex	4%
Having a busy job	2%

Whilst arm cutting may sometimes be characterised as attention-seeking or 'releasing the pain' studies show that any history of deliberate self harm significantly increases the risk of suicide. Employment is a protective factor

Discuss (3) | Improve

Next question

Suicide: risk factors

The risk stratification of psychiatric patients into 'high', 'medium' or 'low risk' is common in clinical practice. Questions based on a patient's suicide risk are therefore often seen. However, it should be noted that there is a paucity of evidence addressing the positive predictive value of individual risk factors. An interesting review in the BMJ (BMJ 2017;359:j4627) concluded that 'there is no evidence that these assessments can usefully guide decision making' and noted that 50% of suicides occur in patients deemed 'low risk'.

Whilst the evidence base is relatively weak, there are a number of factors shown to be associated with an increased risk of suicide

- male sex (hazard ratio (HR) approximately 2.0)
- history of deliberate self-harm (HR 1.7)

- alcohol or drug misuse (HR 1.6)
- history of mental illness
  - depression
  - schizophrenia: NICE estimates that 10% of people with schizophrenia will complete suicide
- history of chronic disease
- advancing age
- unemployment or social isolation/living alone
- being unmarried, divorced or widowed

If a patient has actually attempted suicide, there are a number of factors associated with an increased risk of completed suicide at a future date:

- efforts to avoid discovery
- planning
- leaving a written note
- final acts such as sorting out finances
- violent method

Protective factors

There are, of course, factors which reduce the risk of a patient committing suicide. These include

- family support
- having children at home
- religious belief

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Question 105 of 117

Which one of the following is **not** a recognised feature of anorexia nervosa?

Hypokalaemia	8%
Low LH	4%
Impaired glucose tolerance	28%
Low FSH	4%
Reduced growth hormone levels	57%

Anorexia features

- most things low
- **G**'s and **C**'s raised: **g**rowth hormone, **g**lucose, salivary **g**lands, **c**ortisol, **c**holesterol, **c**arotinaemia

Important for me Less important

Discuss (4) Improve

Next question

Anorexia nervosa: features

Anorexia nervosa is associated with a number of characteristic clinical signs and physiological abnormalities which are summarised below

Features

- reduced body mass index
- bradycardia
- hypotension

- enlarged salivary glands

Physiological abnormalities

- hypokalaemia
- low FSH, LH, oestrogens and testosterone
- raised cortisol and growth hormone
- impaired glucose tolerance
- hypercholesterolaemia
- hypercarotinaemia
- low T3

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Anorexia nervosa

Osmosis - YouTube 12 3

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Question 106 of 117

A 34-year-old man confides in you that he experienced childhood sexual abuse. Which one of the following features is not a characteristic feature of post-traumatic stress disorder?

Hyperarousal	17%
Emotional numbing	6%
Nightmares	2%
Loss of inhibitions	71%
Avoidance	4%

The correct answer is **Loss of inhibitions**. Post-Traumatic Stress Disorder (PTSD) is a mental health condition triggered by experiencing or witnessing a terrifying event. Its symptoms are generally grouped into four types: intrusive memories, avoidance, negative changes in thinking and mood, and changes in physical and emotional reactions (hyperarousal). Loss of inhibitions is not typically associated with PTSD. It refers to the inability to control one's impulses or behaviour, which can be seen in conditions such as mania or certain personality disorders.

Hyperarousal, on the other hand, is a characteristic feature of PTSD. This term refers to the state of being constantly on guard for threats, leading to restlessness, sleep disturbances and difficulty concentrating. It represents the body's heightened response to fear and stress.

Emotional numbing also occurs in PTSD. This involves feeling detached from others and emotionally unresponsive. Individuals may lose interest in activities they once enjoyed and find it difficult to experience positive emotions.

Nightmares are part of the **Intrusive memories** symptom category of PTSD. They involve recurrent, unwanted distressing dreams about the traumatic event. These nightmares can significantly disrupt sleep patterns and contribute to fear and anxiety.

Lastly, **Avoidance** is another key feature of PTSD where individuals will actively avoid places, people or thoughts that remind them of the traumatic event as these triggers could cause distressing memories or flashbacks.

In conclusion, while hyperarousal, emotional numbing, nightmares and avoidance are all

characteristic features of post-traumatic stress disorder according to DSM-5 criteria; loss of inhibitions isn't typically associated with this condition.

Discuss (5) Improve

Next question

Post-traumatic stress disorder

Post-traumatic stress disorder (PTSD) can develop in people of any age following a traumatic event, for example, a major disaster or childhood sexual abuse. It encompasses what became known as 'shell shock' following the first world war. One of the DSM-IV diagnostic criteria is that symptoms have been present for more than one month.

Features

- re-experiencing: flashbacks, nightmares, repetitive and distressing intrusive images
- avoidance: avoiding people, situations or circumstances resembling or associated with the event
- hyperarousal: hypervigilance for threat, exaggerated startle response, sleep problems, irritability and difficulty concentrating
- emotional numbing - lack of ability to experience feelings, feeling detached

from other people

- depression
- drug or alcohol misuse
- anger
- unexplained physical symptoms

Management

- following a traumatic event single-session interventions (often referred to as debriefing) are not recommended
- watchful waiting may be used for mild symptoms lasting less than 4 weeks
- military personnel have access to treatment provided by the armed forces
- trauma-focused cognitive behavioural therapy (CBT) or eye movement desensitisation and reprocessing (EMDR) therapy may be used in more severe cases
- drug treatments for PTSD should not be used as a routine first-line treatment for adults. If drug treatment is used then venlafaxine or a selective serotonin reuptake inhibitor (SSRI), such as sertraline should be tried. In severe cases, NICE recommends that risperidone may be used

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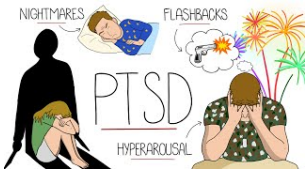
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Media



Post-traumatic stress disorder

Rhesus Medicine - YouTube 3 0



Post-traumatic Stress Disorder (PTSD)

Osmosis - YouTube 8 5

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Question 107 of 117

A 93-year-old female patient on the ward is brought to your attention by the nurses. They are concerned she is experiencing visual hallucinations. She was admitted following a decline in mobility that was thought to be secondary to a urinary tract infection (UTI). She has improved clinically and biochemically during her time on the ward and she is awaiting a increase package of care before discharge.

You review the patient who tells you she earlier saw very small children running across the end of the bed. She reports she regularly sees similar images at home and has done so for many years. She has a background of hypertension, depression and age-related macular degeneration. What is the most appropriate step in this patient's management?

Reassure the patient	65%
Urgent psychiatric evaluation	20%
Consider treatment failure of her UTI	3%
Prescribe 40mg of chlordiazepoxide	4%
Consider commencing an antidepressant	8%

This most likely represents Charles Bonnet syndrome. Reassurance is usually the best treatment, helping people to understand and come to terms with their hallucinations. It is importance to ensure there is not an alternative cause e.g. infection, psychosis, dementia (particularly Lewy body dementia), intoxication, metabolic abnormalities, focal neurological illness.

Discuss (4) | Improve

Next question

Charles-Bonnet syndrome

Charles-Bonnet syndrome (CBS) is characterised by persistent or recurrent complex hallucinations (usually visual or auditory), occurring in clear consciousness. This is generally against a

background of visual impairment (although visual impairment is not mandatory for a diagnosis). Insight is usually preserved. This must occur in the absence of any other significant neuropsychiatric disturbance.

Risk factors include:

- Advanced age
- Peripheral visual impairment
- Social isolation
- Sensory deprivation
- Early cognitive impairment

CBS is equally distributed between sexes and does not show any familial predisposition. The most common ophthalmological conditions associated with this syndrome are age-related macular degeneration, followed by glaucoma and cataract.

Well-formed complex visual hallucinations are thought to occur in 10-30 per cent of individuals with severe visual impairment. Prevalence of CBS in visually impaired people is thought to be between 11 and 15 per cent.

Around a third find the hallucinations themselves an unpleasant or disturbing experience. In a large study published in the British Journal of Ophthalmology, 88% had CBS for 2 years or more, resolving in only 25% at 9 years (thus it is not generally a transient experience).

Cox (2014) Negative outcome Charles Bonnet Syndrome. Br J Ophthalmol.

Next question

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Question 108 of 117

A 54-year-old woman is seen in the neurology clinic.

She is well-known to the team with long-standing left arm weakness affecting all muscle groups, but no other neurological defects.

The patient has been extensively investigated with blood tests, CSF examination, and multiple cross-sectional scans of the brain and spinal cord, but no pathology was ever found. Despite the diagnostic ambiguity, the patient had never expressed significant distress over her symptoms.

On review of her history, she reveals her symptoms began shortly after her husband committed suicide.

What is the most likely diagnosis?

Conversion disorder	68%
Delusional disorder	1%
Hypochondriasis	3%
Psychotic depression	4%
Somatisation disorder	25%

Functional neurological disorder (conversion disorder) - typically involves loss of motor or sensory function

Important for me Less important

Conversion disorder is correct. This patient is presenting with medically unexplained neurological symptoms that do not fit any clinical syndrome, and have arisen most likely in response to a traumatic experience. This is most in keeping with conversion disorder (also known as functional neurologic symptom disorder).

Hypochondriasis is incorrect. Hypochondriasis describes an over-valued idea held by a patient that they have a certain medical condition despite repeated negative tests and reassurance. This is not the case in this question; the patient is presenting with medically unexplained neurological

symptoms that do not fit any clinical syndrome, and have arisen most likely in response to a traumatic experience. This is most in keeping with conversion disorder (also known as functional neurologic symptom disorder).

Delusional disorder is incorrect. Delusions are fixed false beliefs out of keeping with patients' cultural/spiritual beliefs that are held despite evidence to the contrary. Although there is no demonstrable disease process in conversion disorder, it is not believed to be delusional in origin.

Psychotic depression is incorrect. None of the core features of depression are mentioned in the question stem. This answer is therefore incorrect. The patient's arm weakness is not a delusional belief: although there is no demonstrable disease process in conversion disorder, it is not believed to be delusional in origin.

Somatisation disorder is incorrect. Somatisation disorder is the repeated presentation with medically unexplained symptoms, and the associated distress and anxiety associated with these. This patient is presenting with one consistent neurological symptom that is not causing an undue amount of distress; this is more in keeping with conversion disorder (also known as functional neurologic symptom disorder).

Discuss | Improve

Next question

Unexplained symptoms

There are a wide variety of psychiatric terms for patients who have symptoms for which no organic cause can be found:

Somatisation disorder
- multiple physical SYMPTOMS present for at least 2 years
- patient refuses to accept reassurance or negative test results

Illness anxiety disorder (hypochondriasis)
- persistent belief in the presence of an underlying serious DISEASE, e.g. cancer
- patient again refuses to accept reassurance or negative test results

Functional neurological disorder (conversion disorder)
- typically involves loss of motor or sensory function

- the patient doesn't consciously feign the symptoms (factitious disorder) or seek material gain (malingering)
- patients may be indifferent to their apparent disorder - la belle indifference - although this has not been backed up by some studies

Dissociative disorder

- dissociation is a process of 'separating off' certain memories from normal consciousness
- in contrast to conversion disorder involves psychiatric symptoms e.g. Amnesia, fugue, stupor
- dissociative identity disorder (DID) is the new term for multiple personality disorder as is the most severe form of dissociative disorder

Factitious disorder

- also known as Munchausen's syndrome
- the intentional production of physical or psychological symptoms

Malingering

- fraudulent simulation or exaggeration of symptoms with the intention of financial or other gain

Next question

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Links

Royal College of Physicians 5 2

2013 Functional neurological symptoms

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Media



Dissociative disorders

Osmosis - YouTube 19 1

Factitious disorder

Osmosis - YouTube 9 1



Somatic symptom disorder

Osmosis - YouTube 8 1

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Score: **22.2%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓
8 ✗
9 ✗
10 ✗

PassMedicine

Question 109 of 117

A 29-year-old fireman presents following a recent traumatic incident where a child died in a house fire. He describes recurrent nightmares and flashbacks which have been present for the past 3 months. A diagnosis of post-traumatic stress disorder is suspected. What is the most appropriate first-line treatment?

Arrange a CT head to exclude an organic cause	1%
Cognitive behavioural therapy or eye movement desensitisation and reprocessing therapy	80%
Cognitive behavioural therapy or graded exposure therapy	9%
Cognitive behavioural therapy or psychodynamic therapy	6%
Watchful waiting	5%

PTSD management - trauma-focused cognitive behavioural therapy or EMDR

Important for me Less important

The most appropriate first-line treatment for this patient with suspected post-traumatic stress disorder (PTSD) is **cognitive behavioural therapy or eye movement desensitisation and reprocessing therapy**. According to the UK guidelines, both cognitive behavioural therapy (CBT) and eye movement desensitisation and reprocessing (EMDR) are recommended as first-line treatments for PTSD. These therapies have been shown to be effective in reducing symptoms of PTSD, such as intrusive thoughts, flashbacks, and nightmares.

Arranging a **CT head to exclude an organic cause** would not be the most appropriate first step in this case. While it is important to consider potential organic causes for psychiatric symptoms, the patient's history of a recent traumatic event with subsequent nightmares and flashbacks strongly suggests PTSD. A CT scan may be considered if there were other concerning neurological signs or symptoms, but it is not indicated solely based on this presentation.

Cognitive behavioural therapy or graded exposure therapy is another option; however, graded exposure therapy has not been shown to be as effective as EMDR in treating PTSD. Graded exposure can be beneficial for anxiety disorders like phobias but may not address the specific symptoms of PTSD effectively.

Similarly, **cognitive behavioural therapy or psychodynamic therapy** is not the best choice because psychodynamic therapy has limited evidence supporting its effectiveness in treating PTSD. Psychodynamic approaches focus on uncovering unconscious conflicts and past experiences that contribute to current difficulties but may not specifically target trauma-related symptoms like CBT or EMDR do.

Lastly, **watchful waiting** would not be appropriate given that the patient has been experiencing symptoms for 3 months. Watchful waiting might be considered if the patient had only recently experienced the traumatic event and was showing mild symptoms. However, given the duration and severity of his symptoms, active intervention with evidence-based treatments like CBT or EMDR is warranted.

Discuss (2) Improve

Next question

Post-traumatic stress disorder ★

Post-traumatic stress disorder (PTSD) can develop in people of any age following a traumatic event, for example, a major disaster or childhood sexual abuse. It encompasses what became known as 'shell shock' following the first world war. One of the DSM-IV diagnostic criteria is that symptoms have been present for more than one month.

Features

- re-experiencing: flashbacks, nightmares, repetitive and distressing intrusive images
- avoidance: avoiding people, situations or circumstances resembling or associated with the event
- hyperarousal: hypervigilance for threat, exaggerated startle response, sleep problems, irritability and difficulty concentrating
- emotional numbing - lack of ability to experience feelings, feeling detached

from other people

- depression
- drug or alcohol misuse
- anger
- unexplained physical symptoms

Management

- following a traumatic event single-session interventions (often referred to as debriefing) are not recommended
- watchful waiting may be used for mild symptoms lasting less than 4 weeks
- military personnel have access to treatment provided by the armed forces
- trauma-focused cognitive behavioural therapy (CBT) or eye movement desensitisation and reprocessing (EMDR) therapy may be used in more severe cases
- drug treatments for PTSD should not be used as a routine first-line treatment for adults. If drug treatment is used then venlafaxine or a selective serotonin reuptake inhibitor (SSRI), such as sertraline should be tried. In severe cases, NICE recommends that risperidone may be used

Next question

Textbooks

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Extended textbook

Links

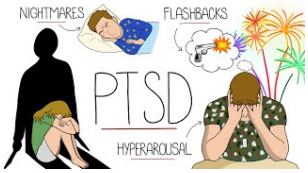
NICE

1 2

2018 PTSD guidelines

Report broken link

Media



Post-traumatic stress disorder

Rhesus Medicine - YouTube

PassMedicine

Question 110 of 117

You have been asked to review a patient with chest pain awaiting assessment by the psychiatry team.

Examination and investigations are normal, however, you note that he is acting strangely. He is reluctant to answer questions and does not maintain eye contact. After developing trust with him, he discloses he has never been in a relationship and that he prefers to be on his own as he won't embarrass himself. He has no friends and doesn't speak to his family because they criticise everything he does.

Which form of personality disorder is he likely suffering from?

Antisocial	13%
Avoidant	69%
Borderline	3%
Histrionic	1%
Schizoid	14%

Patients with avoidant personality disorder are fearful of criticism, being unliked, rejection and ridicule

Important for me Less important

An **avoidant** personality disorder is correct. It is associated with social isolation and avoidance of activities due to a fear of embarrassment, criticism, and fear of others.

An **antisocial** personality disorder is associated with impulsivity, aggressiveness, and irritability. People often fight and have a lack of remorse. They are irresponsible and find it difficult to maintain a job.

Borderline personality disorder reflects a mixture of feelings involving impulsivity in self-damaging acts, instability in relationships, depression, and worries about abandonment.

Histrionic personality disorder describes a person with inappropriate sexuality. People generally

show suggestibility, self-dramatisation, and inappropriate sexual seduction.

Schizoid personality disorder refers to a preference of being alone with few interests, few friends, and a lack of desire for companionship.

Discuss (1) Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	Cluster B: 'Dramatic, Emotional, or Erratic'	Cluster C: 'Anxious and Fearful'
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others
- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship

- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values
- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning
- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked

- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

Textbooks

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Media



Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



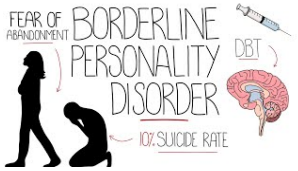
Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



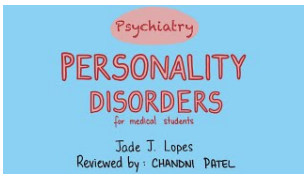
Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2



Cluster B personality disorders (antisocial, borderline, histrionic, narcissistic)

Osmosis - YouTube 11 5



PassMedicine

Question 111 of 117

A 21-year-old female is admitted to the acute medical unit after a paracetamol overdose. She later admits to multiple episodes of impulsive self-harm and overdoses. She reports that her recent overdose was triggered by a fight with her dad and concerns that he will no longer want to see her. She describes long-standing feelings of emptiness and does not like the way she looks.

What is the most likely underlying personality disorder?

Narcissistic personality disorder	3%
Paranoid personality disorder	8%
Borderline personality disorder	70%
Dependant personality disorder	12%
Avoidant personality disorder	7%

Borderline personality disorder is associated with impulsivity, feelings of emptiness, fear of abandonment and unstable self image

Important for me Less important

The correct answer is borderline personality disorder. Patients with personality disorder have disturbances in behaviour and personality that result in considerable personal and social distress across all areas of life. Borderline or emotionally unstable personality disorder is characterised by emotional instability, impulsive behaviour and intense but unstable relationships with others. Patients often fear abandonment of those close to them and may idolise these people. As in the patient described, they often have feelings of emptiness, poor self-image and recurrent attempts at self-harm. There is an association between the development of borderline personality disorder and history of trauma or abuse in childhood.

Narcissistic personality disorder is incorrect. These patients have an over exaggerated sense of self-importance, lack empathy and tend to have a sense of entitlement.

Option 2 is incorrect. Paranoid personality disorder presents in patients who are reluctant to confide in others. They often question the loyalty of friends and family and can be unforgiving. They can see hidden meaning in things or are concerned about conspiracy theories.

Patients with dependent personality disorder struggle to make everyday life decisions and require reassurance and support from others. They cope best when in a relationship and fear being alone. Whilst there are features in the stem of the patient idolising her father there is no evidence of dependent personality disorder.

Option 5 is also incorrect. Avoidant personality disorder is characterised by avoidance of social contact/relationships due to fear of being criticised, rejected or embarrassed. Patients view themselves as inferior to others and so are not keen to be involved unless they are certain of being liked.

Further information on personality disorder can be found in the ICD 10 guide - http://apps.who.int/classifications/icd10/browse/2016/en#/F66

Discuss (5) Improve

Next question

Personality disorders

Personality disorders may be defined as a series of maladaptive personality traits that interfere with normal function in life. It is thought that around 1 in 20 people have a personality disorder. They are typically categorised as belonging to one of three clusters:

Cluster A: 'Odd or Eccentric'	Cluster B: 'Dramatic, Emotional, or Erratic'	Cluster C: 'Anxious and Fearful'
• Paranoid • Schizoid • Schizotypal	• Antisocial • Borderline (Emotionally Unstable) • Histrionic • Narcissistic	• Obsessive-Compulsive • Avoidant • Dependent

Cluster A: 'Odd or Eccentric'

Paranoid

- Hypersensitivity and an unforgiving attitude when insulted
- Unwarranted tendency to questions the loyalty of friends
- Reluctance to confide in others

- Preoccupation with conspirational beliefs and hidden meaning
- Unwarranted tendency to perceive attacks on their character

Schizoid

- Indifference to praise and criticism
- Preference for solitary activities
- Lack of interest in sexual interactions
- Lack of desire for companionship
- Emotional coldness
- Few interests
- Few friends or confidants other than family

Schizotypal

- Ideas of reference (differ from delusions in that some insight is retained)
- Odd beliefs and magical thinking
- Unusual perceptual disturbances
- Paranoid ideation and suspiciousness
- Odd, eccentric behaviour
- Lack of close friends other than family members
- Inappropriate affect
- Odd speech without being incoherent

Cluster B: 'Dramatic, Emotional, or Erratic'

Antisocial

- Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest;
- More common in men;
- Deception, as indicated by repeatedly lying, use of aliases, or conning others for personal profit or pleasure;
- Impulsiveness or failure to plan ahead;
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults;
- Reckless disregard for the safety of self or others;
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations;
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another

Borderline - also known as Emotionally Unstable

- Efforts to avoid real or imagined abandonment
- Unstable interpersonal relationships which alternate between idealization and devaluation
- Unstable self image
- Impulsivity in potentially self damaging area (e.g. Spending, sex, substance abuse)
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness
- Difficulty controlling temper
- Quasi psychotic thoughts

Histrionic

- Inappropriate sexual seductiveness
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionistic speech lacking detail
- Self dramatization
- Relationships considered to be more intimate than they are

Narcissistic

- Grandiose sense of self importance
- Preoccupation with fantasies of unlimited success, power, or beauty
- Sense of entitlement
- Taking advantage of others to achieve own needs
- Lack of empathy
- Excessive need for admiration
- Chronic envy
- Arrogant and haughty attitude

Cluster C: 'Anxious and Fearful'

Obsessive-compulsive

- Is occupied with details, rules, lists, order, organization, or agenda to the point that the key part of the activity is gone
- Demonstrates perfectionism that hampers with completing tasks
- Is extremely dedicated to work and efficiency to the elimination of spare time activities
- Is meticulous, scrupulous, and rigid about etiquettes of morality, ethics, or values
- Is not capable of disposing worn out or insignificant things even when they have no sentimental meaning

- Is unwilling to pass on tasks or work with others except if they surrender to exactly their way of doing things
- Takes on a stingy spending style towards self and others; and shows stiffness and stubbornness

Avoidant

- Avoidance of occupational activities which involve significant interpersonal contact due to fears of criticism, or rejection.
- Unwillingness to be involved unless certain of being liked
- Preoccupied with ideas that they are being criticised or rejected in social situations
- Restraint in intimate relationships due to the fear of being ridiculed
- Reluctance to take personal risks due to fears of embarrassment
- Views self as inept and inferior to others
- Social isolation accompanied by a craving for social contact

Dependent

- Difficulty making everyday decisions without excessive reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty in expressing disagreement with others due to fears of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as a source of care and support when a close relationship ends
- Extensive efforts to obtain support from others
- Unrealistic feelings that they cannot care for themselves

Management

Personality disorders are difficult to treat and in the past have been considered 'untreatable' by definition.. However, a number of approaches have been shown to help patients, including:

- psychological therapies: dialectical behaviour therapy
- treatment of any coexisting psychiatric conditions

Next question

Textbooks

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Media



Cluster A personality disorders (paranoid, schizoid, schizotypal)

Osmosis - YouTube 32 1



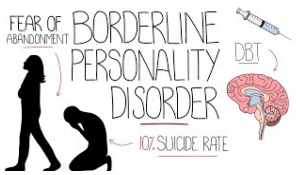
Cluster C personality disorders (avoidant, obsessive-compulsive, dependent)

Osmosis - YouTube 15 3



Personality disorders by clusters

MedLecturesMadeEasy - YouTube 14 3



Borderline Personality Disorder Explained

Rhesus Medicine - YouTube 4 2

PassMedicine

Question 112 of 117

A 64-year-old male who has been on long term chlorpromazine presents with repetitive eye blinking. He reports he is unable to control this and is worried about what might be causing it. He is otherwise well in himself and has no visual disturbance. He has a normal facial and ocular examination with the exception of excessive rapid blinking.

What is the most likely cause of his symptoms?

Parkinsonism	3%
Dry eyes	7%
Sjogren's syndrome	1%
Tardive dyskinesia	71%
Benign essential blepharospasm	18%

Tardive kinesia can present as chewing, jaw pouting or excessive blinking due to late onset abnormal involuntary choreoathetoid movements in patients on conventional antipsychotics

Important for me Less important

The correct answer is tardive dyskinesia. The patient has been on a long term antipsychotic - chlorpromazine and has developed late-onset extrapyramidal side effects. Patients most typically develop lip-smacking, jaw pouting or chewing however repetitive blinking or tongue poking can also occur. This is often involuntary and difficult to treat. Where possible replacing the antipsychotic may help some patients or alternatively, a trial of tetrabenazine may provide some relief.

Parkinsonism can occur in patients taking conventional antipsychotics. Patients experience symptoms similar to those with Parkinson's disease for example tremor, blank facies, bradykinesia and muscle rigidity. There is no mention of any other symptoms in this stem and you would not expect repetitive blinking in parkinsonism. As such this option is incorrect.

Dry eyes may lead to eye twitching but repetitive blinking would be unlikely. Furthermore, you would expect other symptoms to be present such as watering of the eyes or visual disturbance.

Sjogren's syndrome can cause dry eyes but as per the above answer, this in itself should not cause the repetitive involuntary blinking.

Blepharospasm is involuntary twitching or contraction of the eyelid. It is a focal dystonia which most commonly lasts only a few days but can be life long. Patients may be light sensitive and experience periods where the eye clamps shut. The cause is typically unknown but commonly occurs due to stress or fatigue. Given that the patient in the stem is on chlorpromazine, a typical antipsychotic, it is more likely he is suffering tardive dyskinesia due to extrapyramidal side effects.

Discuss Improve

Next question

Antipsychotics

Antipsychotics are a group of drugs used in the management of schizophrenia and other forms of psychosis, mania and agitation. They are usually divided into typical and atypical antipsychotics. The atypical antipsychotics were developed due to the problematic extrapyramidal side-effects which are associated with the first generation of typical antipsychotics.

	Typical antipsychotics	**Atypical antipsychotics**
Mechanism of action	Dopamine D2 receptor antagonists, blocking dopaminergic transmission in the mesolimbic pathways	Act on a variety of receptors (D2, D3, D4, 5-HT)
Adverse effects	Extrapyramidal side-effects and hyperprolactinaemia common	Extrapyramidal side-effects and hyperprolactinaemia less common Metabolic effects
Examples	Haloperidol Chlorpromazine	Clozapine Risperidone Olanzapine

The rest of this section will focus on typical antipsychotics, with atypical antipsychotics covered elsewhere.

Extrapyramidal side-effects (EPSEs)

- Parkinsonism

- acute dystonia
  - sustained muscle contraction (e.g. torticollis, oculogyric crisis)
  - may be managed with procyclidine
- akathisia (severe restlessness)
- tardive dyskinesia (late onset of choreoathetoid movements, abnormal, involuntary, may occur in 40% of patients, may be irreversible, most common is chewing and pouting of jaw)

The Medicines and Healthcare products Regulatory Agency has issued specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke
- increased risk of venous thromboembolism

Other side-effects

- antimuscarinic: dry mouth, blurred vision, urinary retention, constipation
- sedation, weight gain
- raised prolactin
  - may result in galactorrhoea
  - due to inhibition of the dopaminergic tuberoinfundibular pathway
- impaired glucose tolerance
- neuroleptic malignant syndrome: pyrexia, muscle stiffness
- reduced seizure threshold (greater with atypicals)
- prolonged QT interval (particularly haloperidol)

Next question

Textbooks

High-yield textbook

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Links

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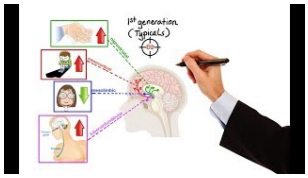
Psychoses and related disorders

Clinical Knowledge Summaries 2 1

Schizophrenia > Prescribing Information > Adverse effects

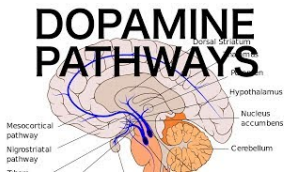
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Media



Antipsychotics

Speed Pharmacology - YouTube 38 0



Antipsychotics, Dopamine, and EPS

Dirty USMLE - YouTube 24 0



Video of patients with tardive dyskinesia

Abnormal Involuntary Movement Scale training video - YouTube 17 3

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Score: **21.4%**

1 ✕

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Question 113 of 117

A 28-year-old man telephones the GP, informing him that he has just stopped taking his medications suddenly as he wishes to come off them. He has a past medical history of depression and asthma, for which he takes sertraline and a salbutamol inhaler.

Which of the following effects is most likely to occur as a result of his decision?

Blunted affect	18%
Hypertension	4%
Diarrhoea	71%
Weight gain	4%
Xanthopsia	2%

Gastrointestinal side-effects such as diarrhoea are seen in SSRI discontinuation syndrome

Important for me Less important

The correct answer is vomiting. Stopping a selective serotonin reuptake inhibitor (SSRI) suddenly can lead to SSRI discontinuation syndrome. The most common symptom is gastrointestinal upset. Therefore, SSRIs should be gradually tapered instead.

A blunted affect is unlikely. This is usually a side effect of taking antidepressants themselves rather than an effect of their cessation. The opposite may, in fact, occur upon stopping the medication - labile mood and swings.

Hypertension is unlikely - there have been a few isolated case reports of this with SSRI discontinuation, but gastrointestinal symptoms are far more likely.

Weight gain, again, is unlikely - more commonly, weight loss is reported upon cessation.

Xanthopsia (yellow-tinted vision) is not known to occur with SSRIs. It may occur as a result of digoxin use.

Discuss (1) Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin

- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness
- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

Next question

Textbooks

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Links

NICE

2022 Depression in adults: treatment and management

2 6

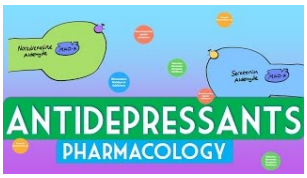
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Media



Antidepressants

Speed Pharmacology - YouTube 30 2



Antidepressants Pharmacology

Soton Brain Hub - YouTube 9 3

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Score: **21.2%**

1 ✗
2 ✗
3 ✗
4 ✗
5 ✗
6 ✗
7 ✓

PassMedicine

Question 114 of 117

A 43-year-old man is reviewed on the mental health ward following a deterioration of his psychiatric condition. The patient was originally admitted with a major depressive disorder associated with psychiatric hallucinations.

Recently the patient has been consistently reporting that he believes he is dead. As a result, the patient has stopped eating and has clear evidence of self-neglect. The patient is not known to have any other medical conditions other than his mental health issues.

What syndrome is this patient suffering from?

Capgras syndrome	7%
Charles Bonnet syndrome	3%
Cotard syndrome	86%
De Clerambault syndrome	2%
Impostor syndrome	1%

Cotard syndrome is characterised by a person believing they are dead or non-existent

Important for me Less important

This patient has presented with the rare psychiatric disorder **Cotard syndrome** where an affected patient holds the delusion that they (or part of their body) are dead or non-existent. The condition is associated with severe depression/psychotic disorders and can have significant detrimental effects on patients suffering self-neglect and withdrawal from others. Management ranges from pharmacological treatments as well as electroconvulsive therapy.

Capgras syndrome is an irrational delusion of misidentification where patients believe that a relative or friend has been replaced by an identical impostor. The diagnosis is normally associated with schizophrenia although cases have been reported in patients suffering significant brain trauma or dementia.

Charles Bonnet syndrome is a psychophysical visual disorder where patients with significant vision loss have vivid, often recurrent visual hallucinations. These hallucinations can be simple (i.e.

shapes, patterns) or complex (i.e. detailed objects, people) but patients almost always have insight into the fact that they are not real and do not suffer from any other forms of hallucinations (e.g. auditory) or delusions.

De Clerambault syndrome, also known as erotomania, is a rare delusion disorder where patients believe another individual is infatuated with them, often despite the individual being imaginary, deceased or someone the patient has never met. A common symptom of the syndrome is patients perceiving that they are being sent messages from the false secret admirer via innocuous events (e.g. messages via number plate or the television).

Impostor syndrome is a pattern of negative psychological behaviour where an individual doubts their own ability or achievements and hold a chronic fear that they will be exposed. These beliefs are held often despite clear external evidence they are false and patients often report feeling they are 'frauds'.

Discuss Improve

Next question

Cotard syndrome

Cotard syndrome is a rare mental disorder where the affected patient believes that they (or in some cases just a part of their body) is either dead or non-existent. This delusion is often difficult to treat and can result in significant problems due to patients stopping eating or drinking as they deem it not necessary.

Cotard syndrome is associated with severe depression and psychotic disorders.

Next question

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Question 115 of 117

A 34-year-old man originally from West Africa is seen in January with depression. There is no past medical history of note but he is known to smoke cannabis. He has had similar episodes for the past two winters. What is the most likely diagnosis?

Cyclothymic disorder	8%
Atypical depression	1%
Seasonal affective disorder	84%
Schizophrenia	1%
Drug-induced depression	6%

The most likely diagnosis for this patient is **Seasonal affective disorder**. This condition is characterised by recurrent episodes of depression that usually occur during the same season each year, in this case, winter. The fact that the patient has had similar episodes for the past two winters strengthens this diagnosis. Seasonal affective disorder is thought to be related to light exposure and can be effectively managed with light therapy or antidepressants.

Cyclothymic disorder would be an unlikely diagnosis as it involves periods of hypomanic symptoms as well as depressive symptoms. Hypomanic symptoms are not mentioned in the stem of the question. Moreover, cyclothymic disorder typically presents a chronic course with no symptom-free intervals longer than two months, which does not fit with this patient's history.

Atypical depression is characterised by mood reactivity (i.e., mood improves in response to positive events) and at least two of the following: significant weight gain or increase in appetite, hypersomnia, heavy feeling in arms or legs (leaden paralysis), and long-standing pattern of interpersonal rejection sensitivity. These features are not described here.

While cannabis use can lead to **Schizophrenia**, particularly in individuals who start using it at a young age or those who use it heavily, there are no psychotic symptoms mentioned such as hallucinations or delusions which would point towards a diagnosis of schizophrenia.

Finally, **Drug-induced depression** could potentially explain his depressive episodes if they were temporally related to his cannabis use. However, drug-induced depression would likely persist beyond just the winter months if he continues using cannabis throughout the year. Furthermore,

drug-induced disorders typically resolve upon cessation of use which doesn't seem to be the case here given his recurrent winter depressions despite presumably ongoing cannabis use.

Discuss (3) | Improve

Next question

Seasonal affective disorder

Seasonal affective disorder (SAD) describes depression which occurs predominately around the winter months. SAD should be treated the same way as depression, therefore as per the NICE guidelines for mild depression, you would begin with psychological therapies and follow up with the patient in 2 weeks to ensure that there has been no deterioration. Following this an SSRI can be given if needed. In seasonal affective disorder, you should not give the patient sleeping tablets as this can make the symptoms worse. Finally, the evidence for light therapy is limited and as such it is not routinely recommended.

Next question

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Question 116 of 117

A 65-year-old female with a history of ischaemic heart disease is noted to be depressed following a recent myocardial infarction. What would be the most appropriate antidepressant to start?

Paroxetine	9%
Imipramine	3%
Flupentixol	2%
Venlafaxine	10%
Sertraline	75%

Sertraline is the SSRI of choice post myocardial infarction

Important for me Less important

Sertraline is the preferred antidepressant following a myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants

Discuss Improve

Next question

Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors (SSRIs) are considered first-line treatment for the majority of patients with depression.

- citalopram (although see below re: QT interval) and fluoxetine are currently the preferred SSRIs
- sertraline is useful post myocardial infarction as there is more evidence for its safe use in this situation than other antidepressants
- SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

Adverse effects

- gastrointestinal symptoms are the most common side-effect
- there is an increased risk of gastrointestinal bleeding in patients taking SSRIs. A proton pump inhibitor should be prescribed if a patient is also taking a NSAID
- patients should be counselled to be vigilant for increased anxiety and agitation after starting a SSRI
- fluoxetine and paroxetine have a higher propensity for drug interactions

Citalopram and the QT interval

- the Medicines and Healthcare products Regulatory Agency (MHRA) released a warning on the use of citalopram in 2011
- it advised that citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval
- the maximum daily dose is now 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment

Interactions

- NSAIDs: NICE guidelines advise 'do not normally offer SSRIs', but if given co-prescribe a proton pump inhibitor
- warfarin / heparin: NICE guidelines recommend avoiding SSRIs and considering mirtazapine
- aspirin
- triptans - increased risk of serotonin syndrome
- monoamine oxidase inhibitors (MAOIs) - increased risk of serotonin syndrome

Following the initiation of antidepressant therapy patients should normally be reviewed by a doctor after 2 weeks. For patients under the age of 25 years or at increased risk of suicide should be reviewed after 1 week. If a patient makes a good response to antidepressant therapy they should continue on treatment for at least 6 months after remission as this reduces the risk of relapse.

When stopping a SSRI the dose should be gradually reduced over a 4 week period (this is not necessary with fluoxetine). Paroxetine has a higher incidence of discontinuation symptoms.

Discontinuation symptoms

- increased mood change
- restlessness
- difficulty sleeping
- unsteadiness

- sweating
- gastrointestinal symptoms: pain, cramping, diarrhoea, vomiting
- paraesthesia

SSRIs and pregnancy
- BNF says to weigh up benefits and risk when deciding whether to use in pregnancy.
- Use during the first trimester gives a small increased risk of congenital heart defects
- Use during the third trimester can result in persistent pulmonary hypertension of the newborn
- Paroxetine has an increased risk of congenital malformations, particularly in the first trimester

Next question

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Links

NICE

2 6

2022 Depression in adults: treatment and management

Report broken link

Media



Antidepressants

Speed Pharmacology - YouTube

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Question 117 of 117

Enid, an 87-year-old lady, is experiencing disturbing visual hallucinations. She sees 'evil' looking faces on the walls and snakes and insects on the floor. She knows that these are not real. She has no auditory hallucinations. She is otherwise well. She has a history of hypertension, depression, hearing loss and macular degeneration. What is the most likely cause of her hallucinations?

Lewy body dementia	9%
Psychotic depression	5%
Acute psychosis	2%
Charles Bonnet syndrome	82%
Normal pressure hydrocephalus	1%

Charles-Bonnet syndrome causes unpleasant visual hallucinations in a third of sufferers

Important for me Less important

The cause of this lady's visual hallucinations is Charles Bonnet syndrome. Around a third of sufferers may experience disturbing or unpleasant hallucinations.

Lewy body dementia may involve visual hallucinations alongside fluctuating cognitive impairment, but in the absence of any current neuropsychiatric symptoms this makes this a less likely diagnosis.

Acute psychosis tends to involve auditory hallucinations associated with delusions.

Psychotic depression would usually involve severe symptoms of depression with the development of psychotic symptoms.

Normal pressure hydrocephalus does not usually involve visual hallucinations.

Discuss (3) Improve

Charles-Bonnet syndrome

Charles-Bonnet syndrome (CBS) is characterised by persistent or recurrent complex hallucinations (usually visual or auditory), occurring in clear consciousness. This is generally against a background of visual impairment (although visual impairment is not mandatory for a diagnosis). Insight is usually preserved. This must occur in the absence of any other significant neuropsychiatric disturbance.

Risk factors include:

- Advanced age
- Peripheral visual impairment
- Social isolation
- Sensory deprivation
- Early cognitive impairment

CBS is equally distributed between sexes and does not show any familial predisposition. The most common ophthalmological conditions associated with this syndrome are age-related macular degeneration, followed by glaucoma and cataract.

Well-formed complex visual hallucinations are thought to occur in 10-30 per cent of individuals with severe visual impairment. Prevalence of CBS in visually impaired people is thought to be between 11 and 15 per cent.

Around a third find the hallucinations themselves an unpleasant or disturbing experience. In a large study published in the British Journal of Ophthalmology, 88% had CBS for 2 years or more, resolving in only 25% at 9 years (thus it is not generally a transient experience).

Cox (2014) Negative outcome Charles Bonnet Syndrome. Br J Ophthalmol.

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