Third edition

Notes & Notes

For MRCP part 1 & 11

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Psychiatry

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Chapter 11 Psychiatry

Unexplained symptoms

Unexplained symptoms
- Somatisation = Symptoms
- hypoChondria = Cancer

- **Conversion disorder**
  - ☞ typically **involves involuntary loss of motor or sensory function without a physiologic cause , often following an acute stressor.**
- **Dissociative disorder**
  - ☞ **involves psychiatric symptoms e.g. Amnesia, fugue, stupor**
- **Malingering** patients consciously fake or exaggerate for secondary gain, such as money, sick leave, or avoidance of responsibilities.
- Somatisation disorder

Eating disorders: Anorexia nervosa

Definition

- Anorexia nervosa is an eating disorder characterised by an intense fear of gaining weight and distorted body image resulting in calorie restriction and severe weight loss leading to inappropriately low body weight (BMI < 18.5 kg/m2), with the inability to recognize the seriousness of their significantly low body weight.

Subtypes

Restricting type	Binge-eating/purging type
• No binge eating or purging over a 3-month period • weight loss is achieved by excessive dieting, exercise, or fasting	• Presence of binge eating or purging over a 3-month period • weight loss is achieved by vomiting, diuretic and laxative abuse, or enemas

Features

- Significant low BMI < 18.5 using strategies that include restrictive eating, purging, and excessive exercise
- Fear of weight gain
- Lack of awareness of the seriousness of low body weight
- **Distorted body image** and believe they are "fat" when they usually are very thin.
  - ⇨ **Use of laxatives to drive weight loss is common, and a purgative screen is therefore a logical next step.**

Complications (due to weight loss & malnutrition)

- **Endocrine:**
  - ⇨ central hypogonadism (Hypothalamic suppression) → estrogen deficiency → ↓ LH & FSH → **estrogen deficiency** leads to:
    - secondary **Amenorrhea** (functional hypothalamic amenorrhea)
    - **osteoporosis** →↑ stress fractures.
  - ⇨ Euthyroid sick syndrome, hypothyroidism

- **Cardiac:**
  - ⇨ structural : cardiac mass, ↓cardiac chamber volumes, mitral valve prolapse, and pericardial effusion.
  - ⇨ Functional: bradycardia, hypotension and QT interval prolongation. So **dizziness** is the most concerning symptom
- **Refeeding syndrome:** occur due to fluid and electrolyte shifts, marked by hypophosphatemia → arrhythmias.

Lab findings

- Electrolyte imbalances: ↓ **potassium**, ↓ sodium, ↓ chloride, ↓ phosphate, ↓ magnesium, ↑ bicarbonate (metabolic alkalosis)
- ↑↑ Cortisol,
- ↑↑ growth hormone (due to GH resistance),
- ↑↑ **glucose (impaired glucose tolerance)**
- Hypercholesterolaemia
- Hypercarotinaemia
- low T3 with normal T4 and TSH
- hypoalbuminaemia

Characteristic findings of Anorexia Nervosa	
General	Low BMI (<18.5 kg/m²), hypothermia
Cardiovascular	Bradycardia, hypotension
Gastrointestinal	Melanosis coli, dental erosions, and parotid gland hypertrophy (in binging/purging type)
Fluids, electrolytes, and nutrition (FEN)	Dehydration, malnutrition, hypokalemia (in binging/purging type)
Genitourinary	Secondary amenorrhea
Musculoskeletal	Osteoporosis
Skin	Lanugo (downy, dark hair), dry skin, erosions on dorsal knuckles (in binging/purging type)

Differential diagnosis

- Bulimia nervosa
  - ⇨ not significantly underweight; rather, most of patients are at normal weight or overweight
  - ⇨ do not have excessive restrictive caloric intake behavior that is characteristic of patients with anorexia nervosa, so complications of starvation are unlikely

Treatment

- first-line → Cognitive behavioral therapy & Nutritional support
- second line (antipsychotic) → olanzapine
  - ⇨ Tricyclic antidepressants should not be used because of their potential cardiotoxicity.
  - ⇨ Bupropion should not be used because it is associated with a higher incidence of seizures in patients with eating disorders.
  - ⇨ Do not offer medication as the sole treatment for anorexia nervosa.

Anorexia features
- most things low
- G's and C's raised: growth hormone, glucose, salivary glands, cortisol, cholesterol, carotinaemia

The best, most easily obtainable measure of clinical improvement in a patient with anorexia nervosa → a weight gain of 1 pound (0.45 kg) per week.

The antidepressant bupropion lowers the seizure threshold. It is, therefore, contraindicated in individuals with eating disorders who are at an increased risk of developing seizures secondary to dehydration and electrolyte imbalances.

Eating disorders: Bulimia nervosa

Definition

- Bulimia nervosa is a type of eating disorder characterised by episodes of **binge eating followed by intentional vomiting** to prevent weight gain.

Features

- BMI is normal or slightly elevated (≥ 18.5 kg/m2)
- **Induced vomiting** → dorsal hand calluses (Russell sign), **erosion of the teeth** , mallory-Weiss syndrome
- **Parotid gland hypertrophy**
- ↑Serum amylase
- Electrolyte disturbances (eg,↓ K+,↓ Cl−), metabolic alkalosis

Treatment

- Cognitive behavioural therapy (CBT)
- Do not offer medication as the sole treatment for bulimia nervosa.

Parotid hypertrophy and erosion of the teeth are the most common physical signs of Bulimia nervosa and may prompt diagnosis.

Hypomania vs mania

The presence of psychotic symptoms differentiates mania from hypomania		
Mania ⇨ Psychotic symptoms	Mania and Hypomania	
delusions of grandeur	Mood	Predominately elevated irritable
Auditory hallucinations	Speech & Thought	▪ Pressured ▪ Flight of ideas ▪ Poor attention
	Behaviour	▪ Insomnia ▪ Loss of inhibitions: risk-taking ▪ Increased appetite

Antipsychotics

Antipsychotics in the elderly - increased risk of stroke and VTE

- Antipsychotics act as **dopamine D2 receptor antagonists**, blocking dopaminergic transmission in the mesolimbic pathways.
- Conventional antipsychotics are associated with problematic extrapyramidal side-effects which has led to the development of atypical antipsychotics such as clozapine

Extrapyramidal side-effects

- Parkinsonism
- acute dystonia (e.g. torticollis, oculogyric crisis)
  - ⇨ affects about 2% of patients.
  - ⇨ **Administer 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

Specific warnings when antipsychotics are used in elderly patients:

- increased risk of stroke (especially olanzapine and risperidone)
- increased risk of venous thromboembolism

Other side-effects

- antimuscarinic: dry mouth, blurred vision, urinary retention, constipation
- sedation,
- weight gain
- **raised prolactin**: galactorrhoea,
  - ⇨ block dopamine D2 receptors → block dopamine's action on the pitutary →**reduces inhibition of prolactin** secretion→ hyperprolactinaemia.
- Amenorrhoea, infertility
- loss of libido, and erectile dysfunction.
- impaired glucose tolerance
- neuroleptic malignant syndrome: pyrexia, muscle stiffness
- reduced seizure threshold (greater with atypicals)
- **prolonged QT** interval (particularly **haloperidol**)

Typical antipsychotics

Typical Antipsychotics			
High Potency Antipsychotics (in Descending Order)	**Advantages**	**Disadvantages**	**Unique Features**
Haloperidol Fluphenazine Perphenazine	Fewer side effects of sedation and hypotension	High association with extrapyramidal symptoms	▪ Able to use as long-acting depot injections ▪ Can be given IM in acute situations
Chlorpromazine	Lower frequency of extrapyramidal side effects	Greater incidence of anticholinergic side-effects, hypotension, sedation	**Corneal** deposits
Thioridazine			▪ **Retinal** deposits ▪ QT prolongation

Atypical antipsychotics

Atypical antipsychotics commonly cause weight gain

atypical antipsychotics such as olanzapine/risperidone/clozapine have been associated with hyperglycaemia and insulin resistance.

- **Clozapine: Most effective anti-psychotic → Decreased suicide risk. → Agranulocytosis**
- **Adverse effects of atypical antipsychotics: weight gain.** clozapine is associated with agranulocytosis.

Clozapine is no longer used first-line due to the risk of agranulocytosis

- **Risperidone is a high-affinity D2 and 5-HT-2 receptor antagonist**

Neuroleptic malignant syndrome (NMS)

- **It may also occur with dopaminergic drugs (such as levodopa) for Parkinson's disease, usually when the drug is suddenly stopped or the dose reduced.**

A patient with P/H/O parkinson's disease, deteriorate 1 – 2 days after admission to hospital for other condition → neuroleptic malignant syndrome (NMS) as a result of not taking her parkinson's medication → **do Creatine kinase to confirm the diagnosis**

- **Onset usually in first 10 days of treatment or after increasing dose**
- Renal failure may occur secondary to rhabdomyolysis
- **Raised creatine kinase** in most cases. **the most important investigation to be performed**

Management

- stop antipsychotic
- IV fluids to prevent renal failure
- **dantrolene** may be useful in selected cases
  - ⇨ thought to work by decreasing excitation-contraction coupling in skeletal muscle by binding to the ryanodine receptor, and decreasing the release of calcium from the sarcoplasmic reticulum
- **bromocriptine**, dopamine agonist, may also be used
- levodopa preparations may be beneficial

Neuroleptic malignant syndrome	Serotonin syndrome
• develops over days to weeks.	• develops over 24 hours.
• characterized by sluggish neuromuscular responses (rigidity, bradyreflexia).	• characterized by neuromuscular hyperreactivity (**tremor, hyperreflexia, myoclonus**).
• resolution typically requires an average of nine days.	• resolution typically requires less than 24 hours .

Serotonin syndrome

- **Myoclonus is the distinguishing feature of serotonin syndrome (found only in serotonin syndrome).**
- **Occur** in those taking therapeutic doses of SSRIs, as part of **drug-drug interaction** (e.g. the addition of: ondansetron, amphetamine, cocaine, meperidine(Pethidine), dextromethorphan, fentanyl, buspiron, ergot alkaloids, lithium, L-dopa, LSD, St. John's Wort), or following intentional **self-poisoning** with SSRI.
- **treatment**
  - ☞ **stopping any serotinergic agents**
  - ☞ **using benzodiazepines for agitation**
  - ☞ **consideration of use of serotonin antagonists such as cyproheptadine if there is severe autonomic disturbance.**

Antidepressants

- **SSRIs are the first-line treatment for the vast majority of patients with depression**

Selective serotonin reuptake inhibitors (SSRIs)

SSRI + NSAID = GI bleeding risk - give a PPI

- **Mechanism of action**
  - ⇨ inhibition of serotonin reuptake in synaptic cleft → ↑ serotonin levels
  - ⇨ primarily act at the **5HT** transporter protein
- **Drugs**
  - ⇨ Flu**oxetine**
  - ⇨ Par**oxetine**
  - ⇨ Sertraline
  - ⇨ Citalopram
  - ⇨ Escitalopram
- **Indications**
  - ⇨ **First-line treatment for major depressive disorder**
  - ⇨ **Generalized anxiety disorder**
  - ⇨ Obsessive-compulsive disorder
  - ⇨ Post-traumatic stress disorder
  - ⇨ Somatic symptom disorder
  - ⇨ Panic disorder
  - ⇨ Gambling disorder
  - ⇨ Premature ejaculation
  - ⇨ Premenstrual dysphoric disorder
  - ⇨ Binge-eating disorder
- **Side effects**
  - ⇨ Sexual disorders (anorgasmia, erectile or ejaculatory dysfunction, ↓ libido)
  - ⇨ Diarrhea, nausea, vomiting
    - **gastrointestinal symptoms are the most common side-effect**
  - ⇨ Sleep disorders
  - ⇨ Headache
  - ⇨ Increased risk of bleeding
    - proton pump inhibitor should be prescribed if a patient is also taking a NSAID
  - ⇨ Serotonin syndrome
  - ⇨ **Risk of suicide attempt a few days after commencing treatment with an SSRI**
    - In major depressive disorder, the greatest risk for suicide occurs after a partial response to antidepressants.
    - Usually, energy and motivation return before a subjective improvement in mood occurs, and a patient who has been too apathetic to act on suicidal rumination may, at this point, attempt suicide.
  - ⇨ patients should be counselled to be vigilant for **increased anxiety and agitation after starting a SSRI**
- **Contraindications**
  - ⇨ risk of serotonin syndrome if given concomitantly within 14 days of **MAOIs**, **linezolid**, or **methylene blue** use
- **Additional information**
  - ⇨ must usually be taken for 4–6 weeks before symptom reduction is seen

- ⇨ citalopram (although ↑ 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
- ⇨ nice advice 2017 → For people who also have a chronic physical health problem, consider using **citalopram or sertraline** as these have a lower propensity for interactions.
- ⇨ SSRIs should be used with caution in children and adolescents. Fluoxetine is the drug of choice when an antidepressant is indicated

- **Citalopram and the QT interval**
  - ⇨ 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**
    - **the SSRIs least likely to cause drug interactions with warfarin appear to be sertraline and citalopram**.
  - ⇨ aspirin: see above
  - ⇨ **triptans: avoid SSRIs**
  - ⇨ fluoxetine and paroxetine have a higher propensity for drug interactions

- **Antidepressant Follow-up**
  - ⇨ After 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.
- **Selective serotonin reuptake inhibitor discontinuation syndrome**

Paroxetine - higher incidence of discontinuation symptoms

- ⇨ When stopping a SSRI, the dose should be gradually reduced over a 4-week period
  - This not necessary with fluoxetine due to its longer half-life.
- ⇨ **Paroxetine has a higher incidence of discontinuation symptoms.**
- ⇨ SSRI withdrawal syndrome typically begins within 24-48 hours after withdrawal,
- ⇨ **Discontinuation symptoms**
  - Psychiatric (anxiety, insomnia, mood lability, vivid dreams)
  - Gastrointestinal (nausea, vomiting , diarrhoea cramping pain), and
  - Neurological (dizziness, headache, paraesthesia, dystonia, tremor).

Management of depression in elderly with Alzheimer's

- **citalopram is the best treatment**
  - ⇨ Although citalopram may have minor effects on cognition, it has been shown in patients with Alzheimer's to impact positively on patient mood and wellbeing and is associated with a significant improvement in agitation and care giver distress.
  - ⇨ Dose limitation to 20 mg is generally recommended in the elderly because of a risk of QT prolongation.
- Fluoxetine and sertraline have no significant positive effect on mood in patients with Alzheimer's disease,
- whilst valproate is of value as a mood stabiliser outside the context of Alzheimer's, it is of little value in patients with the condition.

while not as selective as the SSRIs, drugs of abuse such as cocaine, fenfluramine, and (3,4-methylenedioxy) methamphetamine (**MDMA** or ecstasy) are **inhibitors of serotonin uptake**.

Selective serotonin-norepinephrine reuptake inhibitors (SSNRIs)

- **Mechanism of action**
  - ⇨ inhibition of serotonin and norepinephrine reuptake in synaptic cleft → ↑ serotonin and norepinephrine levels
- **Drugs**
  - ⇨ **Venlafaxine**
  - ⇨ Duloxetine
- **Indications**
  - ⇨ Major depressive disorder (**second-line therapy**)
  - ⇨ Generalized anxiety disorder
  - ⇨ Panic disorder
  - ⇨ Duloxetine: stress incontinence in women
- **Side effects**
  - ⇨ Similar profile to SSRIs (see "Selective serotonin reuptake inhibitors" above)
  - ⇨ **Increased blood pressure**
- **Contraindications**:
  - ⇨ risk of serotonin syndrome if given concomitantly within 14 days of MAOIs, linezolid, or methylene blue use
- **Additional information**:
  - ⇨ Blood pressure should be controlled before initiating SSNRI therapy.

Serotonin antagonist and reuptake inhibitors (SARIs)

- **Mechanism of action**
  - ⇨ Inhibition of serotonin reuptake → ↑ serotonin levels
  - ⇨ Antagonist of H_1- and α_1-receptors
- **Drugs**
  - ⇨ **Trazodone**
  - ⇨ Nefa**zodone**
- **Indications**:
  - ⇨ major depressive disorder, especially in patients with insomnia
- **Side effects**
  - ⇨ **Priapism**
  - ⇨ Sedation (due to H_1 antagonism)
  - ⇨ Orthostatic hypotension
- Contraindications:

- ⇨ risk of serotonin syndrome if given concomitantly within 14 days of **MAOIs**, **linezolid**, or **methylene blue** use

- **Additional information**
  - ⇨ Mainly used as adjunct to other antidepressants for treatment of insomnia associated with depression
  - ⇨ Off-label use: insomnia in patients without depression

Monoamine oxidase inhibitors (MAOIs)

- **Mechanism**
  - ⇨ inhibition of monoamine oxidase → ↓ breakdown of epinephrine, norepinephrine, and serotonin → ↑ levels of epinephrine, norepinephrine, and serotonin
- **Drugs**
  - ⇨ Tranylcypromine
  - ⇨ Phenelzine
  - ⇨ **Selegiline**
  - ⇨ Isocarboxazid
- **Indications**
  - ⇨ Major depressive disorder (**third- or fourth-line therapy**)
    - due to its potentially severe side effects, interaction with foods containing tyramine, and numerous drug interactions
  - ⇨ particularly effective for treating atypical symptoms of depression (↑ appetite and weight gain, ↑ sleep, leaden paralysis)
  - ⇨ Selegiline: Parkinson's disease (as an adjunct to carbidopa-levodopa)
    - For the treatment of depression, Selegiline is available as a transdermal patch
    - (oral form is only used for Parkinson's disease)
- **Side effects**
  - ⇨ Hypertensive crisis with ingestion of **foods containing tyramine** (e.g. aged cheeses, smoked/cured meats, alcoholic beverages, dried fruits)
  - ⇨ Serotonin syndrome
- **Contraindications**
  - ⇨ risk of serotonin syndrome if given concomitantly within 14 days of MAOIs, linezolid, or methylene blue use

Tricyclic antidepressants (TCA)

Dosulepin - avoid as dangerous in overdose

- **Mechanism of action**
  - ⇨ inhibition of serotonin and norepinephrine reuptake in synaptic cleft → ↑ serotonin and norepinephrine levels
- **Drugs**

Tertiary amines	Secondary amines
Amitriptyline	Nortriptyline
Clomipramine	Desipramine
Doxepin	Protriptyline
Imipramine	
Trimipramine	

- **Indications**
  - ⇨ less commonly now for depression due to their side-effects and toxicity in overdose.
  - ⇨ used widely in the treatment of neuropathic pain, where smaller doses are typically required.
  - ⇨ prophylaxis of headache (both tension and migraine)
  - ⇨ Major depressive disorder (**third- or fourth-line therapy**)
  - ⇨ Neuropathy (diabetic neuropathy, post-herpetic neuralgia, etc.)
  - ⇨ Chronic pain (including fibromyalgia)
- **Side effects**
  - ⇨ Orthostatic hypotension
  - ⇨ Sedation and delirium
  - ⇨ Anticholinergic symptoms
    - **Cardiovascular symptoms:**
      - ❖ **wide QRS complex, tachycardia, arrhythmia (including ventricular fibrillation),**
      - ❖ **hypotension**
    - CNS symptoms: drowsiness, confusion, hallucinations, sedation, coma, seizures
    - Gastrointestinal symptoms: intestinal ileus, **constipation**
    - Genitourinary symptoms: **urinary retention**
    - General:
      - ❖ Xerostomia (dry mouth)
      - ❖ blurred vision
      - ❖ mydriasis,
      - ❖ hyperthermia/dry skin

More sedative	Less sedative
Amitriptyline Clomipramine **Dosulepin** Trazodone (is technically a 'tricyclic-related)	Imipramine **Lofepramine** Nortriptyline

- **Overdose**

Lofepramine - the safest TCA in overdosage

- ⇨ **lofepramine has a lower incidence of toxicity in overdose**
- ⇨ amitriptyline and **dosulepin** (dothiepin) are considered the most dangerous in overdose
- ⇨ **Clinical features:** caused by anticholinergic effects
- ⇨ **Management**
  - Secure airways, oxygenation, monitoring, fluid resuscitation
  - ECG: cardiac arrhythmia (e.g., tachycardia, QRS prolongation)
  - Urine immunoassay: detection of TCA in the body
  - Activated carbon in first 2 hours after ingestion as soon as the airways are secured
  - **Sodium bicarbonate for cardiac arrhythmia** (QRS ≥ 100 ms or ventricula arrhythmias)
  - Benzodiazepines for seizures

- **Contraindications**
  - ⇨ Risk of serotonin syndrome if given concomitantly within 14 days of MAOIs, linezolid, or methylene blue use
  - ⇨ Tertiary amines are high-risk medications in the elderly population as they can cause confusion due to sedative and anticholinergic side effects.
- **Additional information**
  - ⇨ Rarely used as a first- or second-line antidepressant today due to extensive side effect profile and risk of lethal overdose (ingestion of a one-week supply can be fatal)
  - ⇨ Physostigmine should not be given to patients with suspected TCA overdose because it can precipitate cardiac arrest
  - ⇨ **Antimuscarinic side-effects are more common with imipramine than other types of tricyclic antidepressants.**

Atypical antidepressants

Mirtazapine

- **Mechanism of action**
  - ⇨ α_2-adrenergic antagonist ⟶ ↑ serotonin and norepinephrine release
  - ⇨ **5-HT_2 and 5-HT_3 receptor antagonist → ↑ effect of serotonin on free 5-HT_1 receptor → likely responsible for antidepressant effects**
  - ⇨ H_1 antagonist
- **Indications**
  - ⇨ major depressive disorder, especially in underweight and insomniac patients
- **Side effects**
  - ⇨ ↑ appetite and weight gain
  - ⇨ Sedation (due to H_1 antagonism)
- **Contraindications**
  - ⇨ risk of serotonin syndrome if given concomitantly within 14 days of MAOIs, linezolid, or methylene blue use

Bupropion

- **Mechanism of action**
  - ⇨ not fully understood, but thought to **increase dopamine and norepinephrine levels via reuptake inhibition**
- **Indications**
  - ⇨ **Smoking cessation**:
    - used in conjunction with counseling and nicotine replacement
  - ⇨ Major depressive disorder
  - ⇨ Depressive disorders with seasonal pattern
- **Side effects**
  - ⇨ **Reduction of seizure threshold**
  - ⇨ Tachycardia, palpitations, agitation
  - ⇨ Weight loss
  - ⇨ Neuropsychiatric symptoms (including depression, mania, psychosis, and paranoia)
- **Contraindications**
  - ⇨ Patients with ↑ risk for seizure (epilepsy, anorexia/bulimia, alcohol or benzodiazepine withdrawal, etc.)
  - ⇨ Risk of serotonin syndrome if given concomitantly within 14 days of MAOIs, linezolid, or methylene blue use
- **Additional information**
  - ⇨ Bupropion has **no sexual side effects**, which makes it a viable alternative to SSRIs or SSNRIs for patients who experience sexual dysfunction.

Benzodiazepines

$GABA_A$ drugs
- benzodiazipines increase the frequency of chloride channels
- barbiturates increase the duration of chloride channel opening

Frequently Bend - During Barbeque

...or...

Barbidurates increase duration & Frendodiazepines increase frequency

Benzodiazepines enhance the effect of GABA, the main inhibitory neurotransmitter

Action:
- Benzodiazepines (lorazepam, diazepam, chlordiazepoxide) enhance the effect of the inhibitory neurotransmitter gamma-aminobutyric acid (GABA).

Indications
- Sedation
- Hypnotic
- Anxiolytic
- Anticonvulsant
- Muscle relaxant

Prescription
- Patients commonly develop a tolerance and dependance 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).

Benzodiazepine withdrawal
- **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 1 month to 1 year or more

benzodiazepine withdrawal syndrome:
- 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**
  - ⇨ Insomnia
  - ⇨ Irritability
  - ⇨ Anxiety
  - ⇨ Tremor
  - ⇨ Loss of appetite
  - ⇨ Tinnitus
  - ⇨ Perspiration
  - ⇨ Perceptual disturbances
  - ⇨ Seizures

Flumazenil

- ⇨ **Flumazenil, a benzodiazepine antagonist, is used to reverse the central sedative effects of benzodiazepines** after anaesthetic and similar procedures
- ⇨ Flumazenil has a shorter half-life than that of diazepam and midazolam and there is a risk that patients may become re-sedated - in which case a repeat dose of flumazenil should be given

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Which drug is more safer in overdose

- **Diazepam** has a long half-life, principally because of its active metabolites.
- **Midazolam** is short-acting but is only used intravenously.
- **Promethazine** is an antihistamine with a 12-hour half-life and may cause daytime sedation.
- **Clomethiazole** is less safe in overdose, has dependence potential and is only licensed for sedation in the elderly.
- **Loprazolam is short-acting (half-life 6–12 hours) .**

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
- the onset of symptoms is usually delayed and it tends to run a prolonged course

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 paroxetine or mirtazapine are recommended**

Post-concussion syndrome

Post-concussion syndrome is seen after even minor head trauma

Typical features include

- headache
- fatigue
- anxiety/depression
- dizziness

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.
  Grief stages: One of the most popular models of grief divides it into 5 stages.
  1. 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
  2. Anger: this is commonly directed against other family members and medical professionals
  3. Bargaining
  4. Depression
  5. Acceptance
- It should be noted that many patients will not go through all 5 stages.
- **risk factors of Abnormal, or atypical, grief reactions**
  - ⇨ more likely occur in women
  - ⇨ if the death is sudden and unexpected.
  - ⇨ problematic relationship before death
  - ⇨ 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

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
  - ⇨ depression severity: 0-4 none, 5-9 mild, 10-14 moderate, 15-19 moderately severe, 20-27 severe
- **NICE use the DSM-IV criteria to grade depression:**
  1. Depressed mood most of the day, nearly every day
  2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day
  3. Significant weight loss or weight gain when not dieting or decrease or increase in appetite nearly every day
  4. Insomnia or hypersomnia nearly every day
  5. Psychomotor agitation or retardation nearly every day
  6. Fatigue or loss of energy nearly every day
  7. Feelings of worthlessness or excessive or inappropriate guilt nearly every day
  8. Diminished ability to think or concentrate, or indecisiveness nearly every day
  9. Recurrent thoughts of death, recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide

Subthreshold depressive symptoms	**Fewer than 5 symptoms**
Mild depression	Few, if any, symptoms in excess of the 5 required to make the diagnosis, and symptoms result in only minor functional impairment
Moderate depression	Symptoms or functional impairment are between 'mild' and 'severe'
Severe depression	Most symptoms, and the symptoms markedly interfere with functioning. Can occur with or without psychotic symptoms

- Psychotic symptoms such as delusions and hallucinations may occur in depression, and when they do, treatment with both an antidepressant and an antipsychotic is indicated.

Psychotic depression

- Psychotic depression: severe depression accompanied by psychotic features
- is uncommon but important due to high risk of suicide.
- **The history of low mood predating the psychotic symptoms, also the fact that the auditory hallucinations and delusions are consistent with the depressive feelings of guilt, distinguish this from schizophrenia.**

Depressive pseudodementia

- **Short-term memory loss** may occur in conjunction **with depression** (depressive pseudodementia) as well as being seen in dementia.
- The memory loss improves with treatment of the depression.

Features of depression

- Early morning wakening
- decreased appetite
- there may be life events that may have precipitated that illness
- weight loss,
- constipation,
- loss of libido, impotence in men,
- fatigue and generalised body aches and pains.
- Retardation or agitation of behaviour may occur.

Early morning waking is a classic somatic symptom of depression and often develops earlier than general insomnia.

Suicide

Factors associated with risk of suicide following an episode of deliberate self-harm:

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

These are in addition to **standard risk factors for suicide**

- male sex
- advancing age
- unemployment or social isolation
- divorced or widowed
- history of mental illness (depression, schizophrenia)
- history of deliberate self-harm
- alcohol or drug misuse

Treatment

- In an Emergency Department the suicidal patient who declines to be admitted for observation and treatment should be managed as follows:
  - ⇨ Ensure that a member of staff stays with them at all times
  - ⇨ Call the duty psychiatrist
  - ⇨ **If they attempt to abscond before or during psychiatric assessment, the staff of the Emergency Department have a duty under Common Law to restrain the patient**

A suicidal patient became agitated and insisted that she wanted to go home immediately. How should you proceed?

➡ **Call the duty psychiatrist, and with other staff in the Emergency Department attempt to restrain her until they arrive**

Depression in older people

- Older patients are less likely to complain of depressed mood
- Depression in elderly can depress cognitive function, hence cognition may be inaccurately depressed on measurement scales.
- In elderly patients, geriatric depression scale (GDS) is more appropriate than Becks depression scale, as the latter focuses heavily on somatic symptoms that frequently under-score depression in elderly patients.

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)

Generalised anxiety disorder

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

Overview

- GABA and serotonin levels are decreased
  - ⇨ **Low levels of γ-aminobutyric acid (GABA)** have been associated with anxiety disorders, including generalized anxiety disorder.
    - Benzodiazepines work as agonists on the GABA-A receptor, enhancing the effects of GABA in the central nervous system and thus relieving anxiety symptoms.
- Norepinephrine is increased.
- 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.'
- characterized by disproportionately excessive fear and anxiety about everyday things.

Diagnosis

- 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.
    - salbutamol,
    - theophylline,
    - corticosteroids,
    - antidepressants
    - caffeine
- Anxiety has to last longer than six months for a formal diagnosis of generalized anxiety disorder to be made.
- According to the fifth edition of Diagnostic and Statistical Manual of Mental Disorders, a diagnosis of generalized anxiety disorder requires **three symptoms out of six** to be present:
  1. muscle tension,
  2. restlessness,
  3. irritability,
  4. fatigability,
  5. sleep disturbance, and
  6. **difficulty concentrating.**

Management:

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.
  - ⇨ Cognitive behavioral therapy is the psychotherapy of choice
- step 4: highly specialist input e.g. Multi agency teams

Drug treatment (step 3)

- NICE recommend pharmacological therapy if low-intensity psychological interventions have been unsuccessful.
- SSRI anti-depressants

- ⇨ **the first-line pharmacological therapy**
- ⇨ Sertraline is recommended first-line, and if contraindicated or not tolerated then any other SSRI or serotonin noradrenaline reuptake inhibitor (SNRI).
- ⇨ 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

- buspirone
  - ⇨ is an azaperone, a chemically and pharmacologically distinct class of drugs.
  - ⇨ It is an effective treatment for generalised anxiety disorder, especially for people who are sensitive to cognitive impairment.
  - ⇨ action: (5-HT1A partial agonist)
  - ⇨ Side effects: **nasal congestion** commonly reported.
- beta-blockers
- benzodiazepines:
  - ⇨ use longer acting preparations e.g. diazepam, clonazepam

Hyperventilation syndrome (HVS):

- history of repeated admissions without a diagnosis and rapid recovery are all pointers towards hyperventilation syndrome (HVS).
- If a doctor encounters such presentation, the **Nijmegen questionnaire** can be used to test whether or not the patient has HVS.
  - ⇨ This questionnaire involves asking about 16 different symptoms such as chest pain and tingling fingers.
  - ⇨ Each one of these symptoms should be assigned a number from 0 to 4 according to how often it is felt.
  - ⇨ A score of more than 23 out of 64 is diagnostic of HVS.

Mood disorder

Cyclothymic disorder

- numerous periods of both depression (but not major depressive episodes) and hypomania for at least two years.
  - ⇨ The crucial feature of a major depressive disorder is a severe dysphoric mood and persistent loss of interest or pleasure in all usual activities.

Dysthymic disorder

- chronic depression with never a manic or hypomanic episode, for at least two years.

Bipolar I disorder

- severe alterations in mood (**mania and depression**) that are usually episodic and recurrent.
- Treatment
  - ⇨ Sodium valproate and carbamazepine are efficacious as first line treatment in the prophylaxis of manic and depressive episodes in bipolar I disorder. Lithium may be used if these anticonvulsants are ineffective.
  - ⇨ However, in the initial stages of manic episodes, the addition of drugs with potent sedative effects are often required, for example, clonazepam, lorazepam and haloperidol.
    - These drugs can be tapered and then discontinued as soon as the initial phase of the manic episode has subsided, and the effects of the anticonvulsants or lithium are seen clinically.

Bipolar II disorder

- characterised by one or more major **depressive** episodes, at least one **hypomanic** episode and **NO manic** episodes.

Cognitive behavioural therapy

Main points

- useful in the management of depression and anxiety disorders
- usually consists of one to two hour sessions once per week
- should be completed within 6 months
- patients usually get around 16-20 hours in total

Seasonal affective disorder (SAD)

Definition

- depression which occurs predominately around the winter months.

Aetiology

- thought to be related to melatonin metabolism and changes during winter

Features

- Symptoms of hyperphagia, hypersomnia and weight gain are more typical in SAD compared with matched non-seasonal controls.

Treatment

- Bright light therapy has been shown to be more effective than placebo for patients with SAD (exposing individuals to bright light for several hours a day)

Body dysmorphic disorder

Overview

- Body dysmorphic disorder (also known as dysmorphophobia) is a mental disorder where patients have a significantly distorted body image
- The pathology of the disorder is probably close to that of obsessive-compulsive disorder (OCD) and the symptoms respond to treatment with an selective serotonin-reuptake inhibitor (SSRI) but not a neuroleptic.

Features

- presents as a preoccupation with a presumed defect in appearance that may be an overvalued idea or may be delusional.

Diagnosis

- **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)

Post-partum mental health problems

Post-natal depression is seen in around 10% of women

Post-partum 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 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 There is around a 20% 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

Alcohol - problem drinking: management

- **Alcohol is a common cause of hypoglycaemia** and can be rapidly life-threatening if not recognised. Common initial symptoms are tachycardia and sweating.
- patients who abuse alcohol often are relatively hypotensive as they are often relatively dehydrated and are thin due to minimal food intake.

Nutritional support

- SIGN recommends alcoholic patients should receive oral thiamine if their 'diet may be deficient'

Drugs used

- benzodiazepines for acute withdrawal
- **Disulfram**: promotes abstinence - alcohol intake causes severe reaction due to inhibition of acetaldehyde dehydrogenase. Patients should be aware that even small amounts of alcohol (e.g. In perfumes, foods, mouthwashes) can produce severe symptoms. Contraindications include ischaemic heart disease and psychosis
- **acamprosate**: reduces craving, known to be a weak antagonist of NMDA receptors, improves abstinence in placebo-controlled trials
  - ⇨ is derived from taurine
  - ⇨ increases the γ-aminobutyric acid (GABA) level, which inhibits CNS activity
  - ⇨ **has relatively few side-effects**
- **Naltrexone:** reduces the pleasure that alcohol brings and craving when it is withdrawn, and can halve the relapse rates; however, it is associated with a number of **adverse effects, including:**
  - ⇨ nausea, vomiting, anxiety, nervousness, insomnia, lethargy, arthralgia, increased sweating and lacrimation, diarrhoea or constipation, increased thirst and liver and kidney dysfunction
  - ⇨ particularly the GI symptoms recognised with naltrexone may discourage use in a patient with a previous history of IBS

Alcohol withdrawal

Alcohol withdrawal is the most common cause of paranoid psychosis with visual hallucination

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
- **peak incidence of seizures at 36 hours**
- peak incidence of delirium tremens is at 72 hours
- **if patients continue to abstain from alcohol they usually peak after about 72 hours and may last a week or more, but usually have resolved by 3 weeks.**

	Minor Withdrawal	Alcoholic Hallucinosis	Withdrawal Seizure	Delirium Tremens
Time Since Last Drink	6-12 hours	12-24 hours	24-48	48-72 hours
Features	• Insomnia • Tremor • Anxiety • Nausea • Vomiting • Headache • Sweating • Palpitations	visual, auditory and tactile hallucinations.	generalised tonic-clonic seizures.	• **Autonomic instability** (tachycardia, hypertension, and pyrexia), • Disorientation • Hallucinations • Agitation

- **Withdrawal Seizure**
  - ⇨ Most patients will have single or few fits, and complete spontaneous disappearance is anticipated within 6-12 hours.
  - ⇨ The presence of focal fits, more than six fits, a prolonged post-ictal phase or development of status epilepticus should suggest another diagnosis.
  - ⇨ Around 30% of patients will go on to develop delirium tremens and prophylactic doses of diazepam or chlodiazepoxide are indicated.
- **Delirium tremens**
  - ⇨ the most severe form of alcohol withdrawal.
  - ⇨ Onset is typically three to seven days after cessation of chronic alcohol ingestion.
  - ⇨ characterised by
    - visual hallucinations,
    - autonomic instability (tachycardia, hypertension, pyrexia),
    - obtundation and confusion.
    - Sweating, tremors and agitation are also features.

Management

- benzodiazepines
  - ⇨ **In hepatic impairment benzodiazepines with a shorter half-life (e.g. lorazepam and oxazepam) are preferred**
- carbamazepine also effective in treatment of alcohol withdrawal
  - ⇨ at a starting dose of 800 mg per 24 hours
- phenytoin is said not to be as effective in the treatment of alcohol withdrawal seizures
  - ⇨ best avoided because of the risk of causing hypotension.
- Thiamine is also indicated in chronic alcoholism but is not as immediately important as diazepam.

Schizophrenia

Epidemiology

Risk of developing schizophrenia

- **monozygotic twin has schizophrenia = 50%**
- parent has schizophrenia = 10-15%
- sibling has schizophrenia = 10%
- no relatives with schizophrenia = 1%
- Schizophrenia is more common in social classes IV and V.
- Temporal lobe epilepsy
- Amphetamines may cause a state resembling hyperactive paranoid schizophrenia with hallucinations.

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 disorder: occasionally referred to as thought alienation

- 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
- incongruity/blunting of affect (inappropriate emotion for circumstances)
- decreased speech
- neologisms: made-up words
- catatonia
- **Concrete thinking where a patient cannot use abstraction to understand the meaning of a sentence.** It is more common in schizophrenia.
- negative symptoms: incongruity/blunting of affect, anhedonia (inability to derive pleasure), alogia (poverty of speech), avolition (poor motivation)

Prognostic indicators

Factors associated with poor prognosis

- strong family history
- gradual onset
- low IQ
- premorbid history of social withdrawal
- lack of obvious precipitant

Schizophrenia: management

Key points

- first-line
  - ⇨ oral atypical antipsychotics are first-line
    - (amisulpride, olanzapine, quetiapine, risperidone and zotepine)
- **if they fail to comply with this then, depot medication (either typical or atypical)**
  - ⇨ The obvious benefit of depot medication is that it is administered at regular intervals (generally 2–4-weekly) by medical staff. Therefore, the patient does not have to remember to take it on a daily basis. Staff also know that the patient has definitely been receiving their medication.
  - ⇨ The drawbacks of depot medication are the discomfort of the injection and problems with the injection site, e.g. infection or abscess formation.
- **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)

Electroconvulsive therapy (ECT)

Indications

- **life-threatening depressive stupor**, especially when a patient is refusing to eat and drink.
  - ⇨ This is used as it generally has a shorter onset of action than antidepressant medication, which takes 2–3 weeks to work.
- severe depression refractory to medication
- psychotic symptoms.

Contraindications

- **Raised intracranial pressure**
- **Recent cerebrovascular accident**
  - ⇨ Most guidelines state that a recent CVA (within 1 to 3 months) is a contraindication.

Side-effects

- **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

Charles Bonnet syndrome (CBS)

Overview

- 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.**
- Well-formed complex visual hallucinations are thought to occur in 10-30 percent of individuals with severe visual impairment.
- Around a third find the hallucinations themselves an unpleasant or disturbing experience.
- This must occur in the absence of any other significant neuropsychiatric disturbance.

Epidemiology

- CBS is equally distributed between sexes and does not show any familial predisposition.
- Prevalence of CBS in visually impaired people is thought to be between 11 and 15 percent.

Risk factors include:

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

Associated conditions

- The most common ophthalmological conditions associated with this syndrome are age-related macular degeneration, followed by glaucoma and cataract.

Prognosis

- 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).

Treatment

- **Reassurance is usually the best treatment**

Delusions

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.

Othello syndrome is a delusional belief that a patients partner is committing infidelity despite no evidence of this. It can often result in violence and controlling behaviour.

De Clerambault syndrome (otherwise known as erotomania), is where a **patient believes that a person of a higher social or professional standing is in love with them.** Often this presents with people who believe celebrities are in love with them.

Ekbom syndrome is also known as delusional parasitosis and is the **belief that they are infected with parasites or have 'bugs' under their skin.** This can vary from the classic psychosis symptoms in narcotic use where the user can 'see' bugs crawling under their skin or can be a patient who believes that they are infested with snakes.

Capgras delusion is the belief that friends or family members have been replaced by an identical looking imposter.

Personality disorders

Disorder	Features
Antisocial	• Failure to conform to social norms with respect to lawful behaviors as indicated by repeatedly performing acts that are grounds for arrest; • 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 safety of self or others; • Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behavior or honor financial obligations; • Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another
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

Disorder	Features
Borderline	• 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 Borderline - think nightmare girlfriend/boyfriend
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
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 **Narcissistic - Steve Jobs's ex-wife thought he had this**
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,

Disorder	Features
	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 • **Cognitive behavioural therapy (CBT) and exposure response prevention (ERP) is the best management**
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 **Schizoid - think Bruce Wayne/Batman from recent Christopher Nolan films**
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

Haptic hallucinations are hallucinations involving skin sensation in the absence of stimuli, and are common in situations of alcohol withdrawal and stimulant drug overdose. In this situation medication with a benzodiazepine is the most appropriate intervention.

Diagnosis

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 reactions including 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.

Panic disorder

Recurrent sudden attacks of intense anxiety or fear accompanied by physical symptoms (e.g: palpitations and a feeling of suffocation) without an obvious cause or trigger.

Definition

- recurrent attacks of intense fear and discomfort.
  - ⇨ recurrent spontaneous panic attacks without an obvious cause or trigger,

Pathophysiology

- Abnormal discharge from the **locus caeruleus in the midbrain has been implicated in panic attacks.** The locus caeruleus is the origin of most brain noradrenergic pathways.
- has a genetic component.

Features

- symptoms develop **suddenly** and usually peak in less than 10 minutes.
- psychiatric symptom:
  - ⇨ **intense anxiety or fear,** derealization or depersonalization, fear of losing control or "going crazy," and fear of dying.
- physical manifestations of intense fear, like:
  - ⇨ **palpitations, feeling of suffocation,** diaphoresis, tremor, shortness of breath, chest pain, nausea, abdominal discomfort, dizziness, lightheadedness, paresthesias, crushing chest pain.

Diagnosis

- To diagnose panic disorder, symptoms must be present for more than one month after an attack.
- physical cause of the symptoms must be ruled out before establishing a diagnosis of panic disorder.

Differential diagnosis

- To distinguish it from a specific phobia, some of the attacks must occur without an environmental trigger.

Treatment:

- NICE recommend either cognitive behavioural therapy or drug treatment
- SSRIs are first-line.
  - ⇨ Selective serotonin reuptake inhibitors and **venlafaxine** (a serotonin norepinephrine reuptake inhibitor) are the first-line
- If SSRIs is contraindicated or no response after 12 weeks, then imipramine or clomipramine should be offered
- Benzodiazepines are often used in the acute management of panic disorder.

Acute confusional state

- also known as **delirium** or acute organic brain syndrome

Definition

- Sudden change in the mental state or sudden onset of behaviour that is out of character,
- Recent changes in behavior (within hours or days)

Risk factors

- **Older people (≥ 65)**
  - ⇨ affects up to 30% of elderly patients admitted to hospital.
- cognitive impairment or dementia
- severe illness
  - ⇨ 20–30% of people on **medical wards** in hospital have delirium,
  - ⇨ 10% - 50% of people who have **surgery** develop delirium
- Current hip fracture

Features - wide variety of presentations

- memory disturbances (loss of short term > long term)
- may be very agitated or withdrawn
- disorientation
- mood change
- visual hallucinations
- disturbed sleep cycle
- poor attention

Diagnosis

- By clinical assessment based on:
  - ⇨ Diagnostic and Statistical Manual of Mental Disorders **(DSM-IV)** criteria **or**
  - ⇨ short Confusion Assessment Method **(short CAM)** to confirm the diagnosis.
    - In critical care or in the recovery room after surgery, **CAM-ICU** should be used.

Differential diagnosis

- **Delirium vs dementia**
  - ⇨ It can be difficult to distinguish between delirium and dementia because symptoms overlap, and some people may have both conditions.
    - Dementia tends to develop slowly, whereas delirium is characterised by sudden changes.
    - Dementia is generally a chronic, progressive disease for which there is no cure. Delirium is a potentially reversible condition if the causes are identified and they are treatable.
    - If clinical uncertainty exists over the diagnosis, initial management should be for delirium.

Treatment

- **Non-pharmacological**
  - ⇨ **the first intervention → Interview the patient, take a history, assess mental state and try to reassure the patient.**
    - Adults with delirium who are distressed or are a risk to themselves or others are not prescribed antipsychotic medication unless de-escalation techniques (Communication approaches) are ineffective or inappropriate.
  - ⇨ **modification of environment**
- **Pharmacological**
  - ⇨ treatment of underlying cause
  - ⇨ Sedation
    - When to use?
      - ☞ Sedation should only be used as a last resort and preferably only once the cause of the delirium has been established.
    - **Which drug?**
      - ☞ **Haloperidol 0.5 mg orally :** the 2006 Royal College of Physicians guidelines' recommended haloperidol 0.5 mg as the first-line sedative
      - ☞ Olanzapine: the 2010 NICE delirium guidelines advocate the use of haloperidol or olanzapine
      - ☞ **Mirtazapine**
        - 🕮 **enhances both noradrenergic and serotinergic transmission, would be a good antidepressant choice for an emaciated agitated elderly patients.** (medical-masterclass.com 2017 mrcp part 2)
        - 🕮 Mirtazapine blocks alpha-2, 5-HT2A and 5-HT3 receptors, thus increasing the amounts of both noradrenaline and serotonin in the synaptic gap. It also has a high affinity for H1 receptors, so it tends to cause weight gain and drowsiness, a good choice for a **thin** agitated patient.
    - For how long?
      - ❖ short-term (usually for 1 week or less) haloperidol or olanzapine
    - Contraindications
      - ❖ avoid antipsychotics in patients Parkinson's disease or dementia with Lewy bodies.

Hypnogogic and hypnopompic hallucinations

Definition

- **Hypnogogic hallucinations:**
  - ⇨ **occur at the transition from wakefulness to sleep**
- hypnopompic hallucinations:
  - ⇨ occur at the transition from sleep to wakefulness.

Features

- Hallucinations can be visual, tactile, auditory or other sensory events, such as changes in location of body parts, and feelings of levitation or out of body experiences.
- Visual and auditory hallucinations are most common.

Treatment

- No specific treatment is required;
- some patients appear to benefit from tricyclic antidepressants, although they were not endorsed by a Cochrane review.