Psychiatry

From lectures, UpToDate, ICD-10/DSM-V, NICE, PassMedicine, etc

Depression

Screening Questions

A yes to either of these prompts further investigation:

- 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?

Assessment

Hospital Anxiety & Depression (HAD) Scale

- 14 questions
  - 7 anxiety, 7 depression
- Each item scored 0-3, score out of 21 for each
- Severity: **0-7** normal, **8-10** borderline, **11+** case
- Encouraged to answer questions quickly

Patient Health Questionnaire (PHQ-9)

- "Over the last two weeks, how often have you been bothered by any of the following problems?"
- 9 items, score of 0-3 each
- Includes questions about thoughts of self-harm
- Severity: **0-4** none, **5-9** mild, **10-14** moderate, **15-19** moderately severe, **20-27** severe

NICE/DSM-IV

1. Depressed mood most of the day, nearly every day
2. Markedly diminished interest or pleasure in all or most activities most of the day, nearly every day
3. Significant weight loss/weight gain when not dieting or increase/decrease 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/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 specific plan, or a suicide attempt/specific plan to commit suicide

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

Differentiating Depression Vs Dementia

The following factors indicate depression:

- Short history, rapid onset
- Biological symptoms
  - Weight loss, sleep disturbance
- Worried about poor memory
- Reluctant to take tests, disappointed with results
- Mini-mental test score is variable
- Global memory loss
  - Dementia is usually recent memory loss

Management of Subthreshold/Mild Depression

General Measures

- Sleep hygiene
- Active monitoring for people who do want intervention

Consider Drug Treatment For:

- Past history of moderate-severe depression
- Initial subthreshold presentation which has been present for 2 years
- Subthreshold/mild depression persisting after other interventions
- Mild depression complicating care of a chronic physical health problem

Low Intensity Psychosocial Interventions

- Individual guided self-help based on CBT principals
  - Written/alternative media supported by trained practitioner
  - Behavioural activation and problem-solving techniques
  - 6-8 sessions over 9-12 weeks + follow up
- Computerised CBT
  - Explains model and encourages tasks between sessions
  - Thought-challenging and active monitoring of behaviour, thought patterns and outcomes
  - Supported by trained practitioner over 9-12 weeks + follow up
- Structured group physical activity program
  - 3 sessions per week over 10-14 weeks
- Group-based CBT
  - Model-based (eg "Coping with depression")
  - Delivered by two trained practitioners to 8-10 participants
  - 10-12 meetings over 12-16 weeks + follow up
- Group-based peer support program for those with chronic physical conditions
  - Focus on sharing experiences and feelings of having a chronic physical health problem
  - 1 session per week for 8-12 weeks

Depression Ctd

Management of Unresponsive/Moderate/Severe Depression

Drug Treatment

- Typically SSRI first line
  - Equally as effective as other agents with a favourable risk-benefit ratio
- Consider side effect profile, interactions and potential for toxicity (especially in those at risk of suicide)

High Intensity Psychosocial Interventions

- Individual CBT
  - Focuses on patients' thinking and perception of the problem
  - Thought-challenging and active monitoring of behaviour, thought patterns and outcomes
  - 16-20 sessions over 3-4 months
  - 3-4 follow up over subsequent 3-6 months
  - Consider 2 per week for first 2-3 weeks if moderate-severe
- Interpersonal therapy (IPT)
  - Focuses on patients' stressful life events and interpersonal events associated with the onset of mental health symptoms
  - 16-20 sessions over 3-4 months
  - Consider 2 per week for first 2-3 weeks if moderate-severe
- Behavioural activation
  - Increase engagement in adaptive activities
  - Decrease engagement in activities that maintain depression or increase risk for depression
  - Solve problems that limit access to reward or that maintain or increase aversive control
  - 16-20 sessions over 3-4 months
  - 3-4 follow up over subsequent 3-6 months
  - Consider 2 per week for first 2-3 weeks if moderate-severe
- Behavioural couples therapy
- Group-based or individual CBT for those with concurrent chronic physical health problems

Suicide

- Little evidence that risk stratification can usefully guide decision making or predict outcomes
- 50% of suicides occur in patients deemed low-risk

Risk Factors for Suicide

- Male sex (HR ~2.0)
- History of deliberate self-harm (HR 1.7)
- Alcohol/drug misuse (HR 1.6)
- History of mental illness
  - Depression
  - Schizophrenia (10% will complete suicide)
- History of chronic disease
- Advancing age
- Unemployment/social isolation
- Being unmarried/divorced/widowed

Risk factors for later completed suicide in a suicide attempt

- Efforts to avoid discovery
- Planning
- Leaving a written note
- "Final acts", sorting out finances
- Violent method

Protective Factors for Suicide

- Family support
- Having children at home
- Religious belief

Depression-Like States

- Dementia
- Psychosis with negative symptoms
- Seasonal affective disorder
  - Depression occurring predominantly around the winter months
  - Treated as per depression

Grief Reaction

Typical 5 Stages

1. Denial – Many include feeling of numbness or pseudohallucinations of the deceased. May focus on objects reminding of deceased or prepare meals for them
2. Anger – Commonly directed against family members or healthcare professionals
3. Bargaining
4. Depression
5. Acceptance

Atypical Grief Reactions

- More common in women, sudden unexpected death, problematic relationship before death, lack of social support
- **Delayed grief:** >2 weeks pass before grieving begins
- **Prolonged grief:** Difficult to define, normal grief actions take up to/beyond 12 months

Anxiety Disorders

Panic Disorder

- Recurrent attacks of severe anxiety which are not restricted to any situation or set of circumstances
  - Therefore unpredictable

Features

- Palpitations
- Chest pain
- Choking sensations
- Dizziness
- Feelings of unreality (depersonalisation/derealisation)
- Secondary fear of dying/losing control/going mad
- No preceding depression
  - Panic secondary to depression is a separate diagnosis

Stepwise approach

1. Recognition and diagnosis
2. Treatment in primary care (CBT or antidepressant)
3. Review and consideration of alternative treatments
4. Review and referral to specialist mental health services
5. Care in specialist mental health services

Drug Treatment in Panic Disorder

- SSRIs first line
- No response after 12 weeks – imipramine/clomipramine (off-label)
- No response after 12 weeks
  - Other SNRI/TCA
- Benzodiazepines are associated with poor long term outcomes and should not be prescribed for individuals with panic disorder

Generalised Anxiety Disorder

- Anxiety that is generalised and persistent but not restricted to/predominating in any particular situation/environmental circumstances

Features

- Persistent nervousness
- Trembling
- Muscular tensions
- Sweating
- Light-headedness
- Palpitations
- Dizziness
- Epigastric discomfort
- Fears that patient/relative will soon become ill or have an accident

Stepwise approach

1. Education about GAD + active monitoring
2. Low intensity psychological intervention (individual non-facilitated self-help/individual guided self-help/psychoeducational groups)
3. High intensity psychological intervention (CBT/applied relaxation) or drug treatment
4. Highly specialist input (multi-agency teams)

Drug Treatment in GAD

- SSRI (sertraline) first line
- If ineffective, offer another SSRI or SNRI (duloxetine/venlaxafine)
- If SSRI and SNRI not tolerated, offer pregabalin
- For patients under 30, warn of increased risk of suicide and self-harm and follow up weekly

Mixed Anxiety and Depressive Disorder

- Symptoms of anxiety and depression are both present, but neither predominates, and neither are present to the extent that justifies a diagnosis if considered separately

Phobic Anxiety Disorders

- Group of disorders in which anxiety/panic is evoked only or predominantly by certain well-defined situations that are not currently dangerous
- Situations are characteristically avoided or endured with dread

Agoraphobia

Fears

- Leaving home
- Entering shops/crowded or public places
- Traveling alone in trains, buses or planes

Features

- Panic attacks
- Depressive & obsessional features
- Avoidance of the phobic situation/exit planning

Social Phobias

Fears

- Perceived scrutiny/criticism from others

Features

- Panic attacks
- Low self-esteem
- Blushing, hand tremor
- Nausea
- Frequency of micturition

Specific Phobias

Fears

- Specific animals
- Heights (acrophobia)
- Enclosed spaces (claustrophobia)
- Thunder
- Darkness
- Flying
- Using public toilets
- Eating certain foods
- Dentistry
- Sight of blood/injury

Features

- Panic attacks

Obsessive Compulsive Disorder

- Characterised by the presence of obsessions, compulsions, or commonly both

Obsession

- Unwanted/intrusive thought, image or urge that repeatedly enters the person's mind
- May be an indecisive endless consideration of alternatives which interfere with ability to make trivial but necessary daily decisions
- Obsessive ruminations are associated with depression, so a diagnosis of OCD should be made in the absence of a depressive episode

Compulsion

- Repetitive behaviours/mental acts that the person feels driven to perform
- Overt
  - E.g. checking that a door is locked
- Covert
  - E.g. repeating a phrase in their mind
- Underlying fear of a danger to or caused by the patient and the behaviour is a ritualistic/symbolic attempt to avert that danger

Associations

- Depression (30%)
- Schizophrenia
- Sydenham's chorea
- Tourette's syndrome
- Anorexia nervosa

Management

Mild Functional Impairment

- Low intensity psychological treatments
  - CBT including exposure and response prevention (ERP)
- If insufficient, offer either course of SSRI or more intensive CBT (including ERP)

Moderate Functional Impairment

- Choice of either an SSRI or more intensive CBT (including ERP)
  - Any SSRI for OCD
  - Specifically fluoxetine for body dysmorphic disorder

Severe Functional Impairment

- Combined treatment with SSRI and CBT (including ERP)

Stress Disorders

Acute Stress Disorder

- Acute stress reaction occurring within 4 weeks of exposure to a traumatic event
  - Threatened death
  - Serious injury
  - Sexual assault

Features

- Intrusive thoughts
  - Flashbacks, nightmares
- Dissociation
  - "Being in a daze", time slowing
- Negative mood
- Avoidance
- Arousal
  - Hypervigilance, sleep disturbance

Management

- Trauma-focused CBT is first line
- Benzodiazepines
  - May be used for acute symptoms (agitation, sleep disturbance)
  - Should be used with caution as they can be addictive and may be detrimental to adaptation

Post-Traumatic Stress Disorder

- Can develop at any age following exposure to a traumatic event
- Symptoms persist for more than one month (DSM-IV)

Features

- Re-experiencing
  - Flashbacks, nightmares, repetitive and distressing intrusive images
- Avoidance
  - People, places or situations resembling or related to the event
- Hyperarousal
  - Hypervigilance for threat, exaggerated startle response, sleep disturbance, irritability and difficulty concentrating
- Emotional numbing
- Depression
- Drug/alcohol misuse
- Anger
- Unexplained physical symptoms

Management

- Single-session interventions (debriefing) following a traumatic event are not recommended
- Watchful waiting may be sufficient for mild symptoms <4 weeks
- Military personnel have access to treatment within the military
- Psychological interventions
  - Trained personnel, should prepare patients for end of treatment, involve elaboration and processing or trauma-related emotions, give strategies for dealing with flashbacks etc
  - Trauma-focused CBT
  - Eye Movement Desensitisation and Reprocessing (EMDR) for non-combat trauma
- Drug intervention
  - Not used first line
  - If necessary, venlaxafine or SSRI (sertraline)
  - In severe cases, risperidone may be used

Eating Disorders

Anorexia Nervosa

- Most common cause of admissions to child and adolescent wards
- 90% female, predominantly adolescents and young adults

Features

- Reduced BMI
- Bradycardia
- Hypotension
- Enlarged salivary glands
- Amenorrhoea

Biochemical Abnormalities

- Hypokalaemia
- Low FSH, LH, oestrogens and testosterone
- Raised cortisol and GH
- Impaired glucose tolerance
- Hypercholesterolaemia
- Hypercarotenaemia
- Low T3

Diagnosis (DSM-V)

1. Restriction of energy intake relative to requirements leading to significantly low body weight in the context of age, sex, developmental trajectory and physical health
2. Intense fear of gaining weight or becoming fat, even in underweight
3. Disturbance in the way one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight

Management (adults)

- Individual eating-disorder-focused CBT (CBT-ED)
- Maudsley Anorexia Nervosa treatment for Adults (MANTRA)
- Specialist supportive clinical management (SSCM)

Management (children)

- First line: anorexia-focused family therapy
- Second line: CBT

Bulimia Nervosa

- Characterised by episodes of binge eating followed by intentional vomiting or other purgative behaviours (laxatives, diuretics, exercise)

Diagnosis (DSM-V)

- Recurrent episodes of binge eating (eating ana mount that is definitely larger than most people would eat during a similar period of time and circumstances)
- Sense of lack of control over eating during the episode
- Recurrent inappropriate compensatory behaviour to prevent weight gain
  - Induced vomiting, laxatives, diuretics, fasting, excessive exercise
- Binge eating and compensation 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 extensively during episodes of anorexia nervosa

Management

- Specialist referral appropriate in all cases
- NICE: Bulimia-nervosa-focused guided self-help first line for adults
  - If unacceptable/contraindicated/ineffective after 4 weeks, CBT-ED
- Bulimia-nervosa-focused family therapy (FT-BN) for children
- Trial for high dose fluoxetine currently licensed but long-term data lacking

Refeeding Syndrome

- Occurs when food is reintroduced following a period of starvation
- Switching of catabolism to carbohydrate metabolism

Metabolic Consequences

- Hypophosphataemia
- Hypokalaemia
- Hypomagnesaemia
  - Predisposition to torsades de pointes
- Abnormal fluid balance
- These changes can lead to organ failure

Prevention

- If patient has not eaten for more than 5 days, refeed at no more than 50% requirement for the first two days

Mania & Hypomania

Common Features

Mood

- Elevated out of keeping with patient's circumstances
- Can range from carefree joviality to uncontrollable excitement
- Irritability may occur
- Feelings of great physical and mental efficiency
- Self-esteem inflated with grandiose confidence

Speech & Thought

- Pressured speech
- Flight of ideas
  - Rapid speech with frequent changes in topic based on associations, distractions and word play
- Poor attention and easy distractibility

Behaviour

- Reduced sleep
- Increased sociability and over-familiarity
- Loss of inhibitions and reckless/out of character behaviour

Differentiating Features

Hypomania

- Lesser version of mania
- <7 days, typically 3-4
- Can be high functioning and does not impair functional capacity in social or work setting
- Unlikely to require hospitalisation
- Does not exhibit any psychotic symptoms

Mania

- Lasts for 7 days
- Causes severe functional impairment in social and work setting
- May require hospitalisation due to risk of harm to self or others
- May present with psychotic symptoms
  - Delusions, usually grandiose
  - Hallucinations, generally of voices speaking directly to patient
  - May be mood-congruent or incongruent

Management

- Stop antidepressant if taking
- Offer antipsychotic regardless of whether antidepressant is stopped
  - Haloperidol
  - Olanzapine
  - Quetiapine
  - Risperidone
- If antipsychotic and an alternative are ineffective or not tolerated, consider adding lithium
- If lithium is ineffective or unsuitable, consider adding valproate

Bipolar Affective Disorder

- Chronic mental health disorder characterised by periods of mania/hypomania alongside periods of depression
- Typically develops in the late teen years

Classification

Bipolar I

- Manic episodes lasting at least 7 days and depressive episodes lasting usually 2 weeks (most common)

Bipolar II

- Depressive episodes more prominent with hypomanic episodes, no manic episodes

Management of Bipolar Depression

Psychological

- Psychological intervention specifically designed for bipolar depression
- High-intensity psychological intervention as per managing depression

Drug Treatment (Moderate-Severe)

- If not taking any drug to treat BPAD
  - 1. Fluoxetine + olanzapine/quetiapine alone
  - 2. Lamotrigine/olanzapine alone
- If taking lithium
  - Lithium level too low – increase lithium
  - Lithium at maximum level
    - 1. Fluoxetine + olanzapine/quetiapine alone
    - 2. Lamotrigine/olanzapine alone
- If taking valproate
  - Valproate level too low – increase valproate
  - Valproate at maximum level
    - 1. Fluoxetine + olanzapine/quetiapine alone
    - 2. Lamotrigine/olanzapine alone

Long Term Management of BPAD

- Discuss/review long term management after any depressive or manic episode

Psychological Interventions

- Family interventions for those in close proximity with patient
- Structured psychological intervention (individual, group or family) which has been designed for BPAD

Drug Treatment

- Lithium 1st line and most effective long term
  - Requires regular monitoring
- If not tolerated/suitable, consider valproate or olanzapine
- Quetiapine if it has been effective in an episode of mania or bipolar depression
- Avoid valproate in women of child-bearing age
- If stopping any long term treatment, monitor symptoms, mood and mental state for 2 years

Psychosis

- Condition of the mind broadly defined as a loss of contact with reality
- 13-23% lifetime risk, 1-4% will have a psychotic disorder

Features

Delusions

- Fixed false beliefs held absolutely by the patient that are not in keeping with their religious or cultural background
- **Persecutory**
  - Eg, one is being followed and watched by a neighbour
- **Grandiose**
  - Eg, one is a millionaire CEO
- **Erotomanic**
  - Eg, a celebratory is in love with them
- **Somatic**
  - Eg, ones sinuses are infected with worms
- **Delusions of reference**
  - Eg, the voices on the TV are speaking about the patient
- **Delusions of control**
  - Eg, ones thoughts and actions are being controlled

Hallucinations

- Wakeful sensory experiences of stimuli that are not actually present
- Can occur in any modality
- Auditory most common
  - Voices, may speak directly to the patient, to each other about the patient, etc
- Followed by visual, tactile, olfactory and gustatory

Thought disorganisation

- Nonspecific
- Observed through speech
- Alogia/poverty of thought
- Thought blocking
- Loosening of associations
- Tangentiality
  - Called circumstantiality if topic returns to original
- Clanging/clag association
  - Using words linked by rhyme/phonetic similarity
- Word salad
  - Real words presented incoherently
- Perseveration
  - Repeating words or ideas even after conversation has changed topic

Aggression/agitation

- Non-specific, but presents a risk to the patient, those around them and healthcare workers

Negative symptoms

- Catatonia, decreased emotions, reactions, interactions with others, low spontaneous drive

Differentiating Causes

Associated with primary psychotic disorder

- Family history often present
- Insidious onset
- Onset in teenage years to mid-30s
- Variable presentation
- Auditory hallucinations

Associated with primary medical condition

- Family history variably present
- Acute onset
- 40s or older
- Presents in general medical or ICU setting
- Nonauditory hallucinations

Primary Psychiatric Causes

- All must not be better explained by a medical or other psychiatric cause

Schizophrenia

- Presence of psychotic symptoms persistently and with decline in function, with disturbance persisting for at least 6 months
- Requires ruling out of schizoaffective disorder, mood disorders, and medical or pharmacological causes

Schizophreniform Disorder

- Features of schizophrenia lasting between 1 and 6 months, with or without functional decline

Schizoaffective Disorder

- Requires an uninterrupted period of major mood episode concurrent with psychotic symptoms as well as delusions or hallucinations for 2 or more weeks in the absence of mood symptoms
- Must meet criteria for a major mood disorder

Delusional Disorder

- Presence of one or more delusions for a period of one month or longer
- Does not meet other criteria for schizophrenia
  - Other psychotic symptoms
  - Functional impairment
- Delusions classified by type and bizarre/non-bizarre

Brief Psychotic Disorder

- Symptoms last >1 day and <1 months with return to baseline function

Schizotypal Personality Disorder

- Reduced capacity for social relationships
- Cognitive distortions or eccentrities in keeping with psychotic symptoms

Major Depressive Disorder with Psychotic Symptoms

BPAD with Psychotic Symptoms

Psychosis Ctd

Primary Medical Causes

Delirium

- Characterised by acute onset of confusion, disorientation and attention problems
- Associated with psychotic symptoms and can improve with antipsychotic medication
- Causes
  - Fluid & electrolyte imbalances
  - Hypoglycaemia
  - Hypoxia
  - Hypercapnia
  - Infections
  - Medications/toxins/withdrawal

Endocrine Disorders

- Thyroid
- Parathyroid
- Adrenal

Hepatic/Renal Disorders

- Hepatic/uraemic encephalopathy

Infectious Diseases

- HIV
- Syphilis
- Herpes simplex encephalitis
- Lyme disease
- Prion disorders

Inflammatory/Demyelinating Disorders

- Anti-NMDA receptor encephalitis
- SLE
- MS
- Leukodystrophies

Metabolic Disorders

- Wilson's disease
- Acute intermittent porphyria

Neurological/Neurodegenerative

- Head trauma
- SOL
- Alzheimer's/Lewy-body dementia/Parkinson's, Huntington's

Vitamin Deficiency

- B12

Drug/Substance Induced Psychosis

- Many many many causes

Management

Medical Work-Up

- FBC, U+E, LFT, TFT
- Syphilis, HIV
- Urinalysis and urine and urine culture if indicated
- Urine drug screen
- Serum B12 levels

Psychiatric Work-Up

- Interview and mental state exam

Admission

- Needed if patients is a risk to themselves or others
- Voluntary or involuntary

Pharmacological

- 2nd generation first line
  - Aripiprazole
    - 10-15mg/day up to 30mg/day
  - Risperidone
    - 2mg/day up to 4mg/day
  - Fewer EPS
- Acute agitation
  - Olanzapine/haloperidol PO/IM
  - Add benzodiazepine if severe agitiation
    - Haloperidol 5mg + lorazepam 2mg + benztropine 2mg

Duration of Therapy

- Depends on cause
  - Schizophrenia: indefinite
  - Delirium: 2 weeks after symptom resolution

Psychosocial Interventions

- CBT, family based interventions, recognition and prevention

Schizophrenia

- Condition characterised by continuous or relapsing episodes of psychosis

Epidemiology

Family History

- Monozygotic twin: 50%
- Parent: 10-15% (RR 7.5)
- Sibling: 10%
- No relatives: 1%

Other Risk Factors

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

Schneider's First Rank Symptoms

- Auditory hallucinations
- Thought alienation
- Passivity phenomena
- Delusional perceptions

Auditory Hallucinations

- 2+ voices discussing the patient in the third person
- Thought echo
- Voices commenting on patient's behaviour

Thought Alienation

- Thought insertion
- Thought withdrawal
- Though broadcasting

Passivity Phenomena

- Bodily sensations being controlled by external influence
- Actions/impulses/feelings imposed on the patient or influenced by others

Delusional Perceptions

- First a normal object is perceived, then there is an intense delusional insight into that object's meaning for the patient

Other Features

- Impaired insight
- Blunted affect/emotional incongruency
- Decreased speech/neologisms
- Catatonia
- Negative symptoms

Diagnosis (DSM-V)

- Two or more features present for a significant time over a one month period (or less if treated)
  - Delusions, hallucinations, disorganised speech, disorganised/catatonic behaviour, negative symptoms
- Functioning is impaired
- Continuous signs of disturbance persist for 6 months
- Organic/other psychiatric causes ruled out

Subtypes (ICD-10)

Paranoid

- Prominent delusions and hallucinations with little disturbance in speech/affect

Hebephrenic

- Affective changes prominent
- Mood shallow and inappropriate
- Adolescents and young adults

Catatonic

- Inability to move normally

Post-schizophrenic depression

- Depressive period following resolution of psychotic symptoms

Residual

- Clear progression from early stage to later stage with negative symptoms

Simple

- Residual schizophrenia without having experienced initial psychosis

Undifferentiated

- Does not fit any type

Management

Psychosocial

- CBT

Pharmacological

- 2nd generation first line
  - Aripiprazole
    - 10-15mg/day up to 30mg/day
  - Risperidone
    - 2mg/day up to 4mg/day
  - Fewer EPS
- Acute agitation
  - Olanzapine/haloperidol PO/IM
  - Add benzodiazepine if severe agitiation
    - Haloperidol 5mg + lorazepam 2mg + benztropine 2mg
- Cardiovascular risk factors should be monitored
- **Clozapine**
  - Effective, but high risk of agranulocytosis (requires FBC monitoring)
  - Only prescribed if schizophrenia is not controlled by the use of two or more antipsychotics, including a 2nd generation

Poor Prognostic Factors

- Strong family history
- Gradual onset
- Low IQ
- Prodromal phase of social withdrawal
- Lack of obvious precipitant

Sleep Problems

Insomnia

- Difficulty initiating or maintain sleep or early morning waking despite adequate time and opportunity for sleep
- Results in impaired daytime functioning

Classification

- Acute
  - Typically related to life events and resolves without treatment
- Chronic
  - At least three nights per week for at least three months

Features

- Decreased daytime functioning
- Delayed sleep onset/night wakening
- Increased accidents due to poor functioning
- Partner's rest can suffer

Risk Factors

- Female
- Increasing age
- Lower educational attainment
- Unemployment
- Economic inactivity
- Widowed/divorced/separated

Causative Factors

- Alcohol/substance misuse
- Medications (eg corticosteroids)
- Poor sleep hygiene
- Chronic pain
- Chronic illness
- Psychiatric illness
- Daytime napping
- Enlarge tonsils/tongue
- Micrognathia/retrognathia
- Lateral narrowing of oropharynx

Management

- Identify & remove causes
- Advise against driving while sleepy
- Good sleep hygiene: no screens before bed, limited caffeine, fixed bed times
- Hypnotics only if daytime impairment is severe
  - Short-acting benzos or z-drugs
  - Not diazepam
  - Lowest dose for shortest time possible
  - Do not prescribe another if the first doesn't work
- Review after 2 weeks and consider CBT

Sleep Paralysis

- Related to paralysis which occurs naturally with REM sleep
- Paralysis shortly after waking up or before falling asleep
- Hallucinations (visual or auditory) during paralysis

Management

- Clonazepam can be used if troublesome

Personality Disorders

- Not traditionally viewed as curable disorders, but some psychological therapies have been shown to help, such as dialectical behavioural therapy

Antisocial

- More commonly men
- Failure to conform to social norms & lawful behaviours
  - Repeated actions that are grounds for arrest
- Deception
  - Lying, aliases, conning
- Impulsiveness/failure to plan ahead
- Irritability & aggressiveness
  - Repeated fights/assaults
- Reckless disregard for safety of self & others
- Consistent irresponsibility & failure to sustain work or financial obligations
- Lack of remorse

Avoidant

- Avoidance of occupation activities with interpersonal contact due to fears of criticism/rejection
- Unwillingness to be involves unless certain of being liked
- Preoccupied with ideas of being criticised/rejected in social situations
- Lack of intimate relationships due to fear of being ridiculed
- Reluctant to take personal risks due to fear of embarrassment
- Views self as inept and inferior
- Social isolation accompanied by craving for social contact

Borderline

- Efforts to avoid real or imagined abandonment
- Unstable personal relationships
  - Alternate between idolisation and devaluation
- Unstable self-image
- Impulsivity in potentially self-damaging area
  - Spending
  - Sex
  - Substances
- Recurrent suicidal behaviour
- Affective instability
- Chronic feelings of emptiness
- Difficulty controlled temper
- Quasi psychotic thoughts

Dependant

- Difficulty making everyday decisions without reassurance from others
- Need for others to assume responsibility for major areas of their life
- Difficulty expressing disagreements due to fear of losing support
- Lack of initiative
- Unrealistic fears of being left to care for themselves
- Urgent search for another relationship as soon as one ends

Histrionic

- Inappropriate sexual seduction
- Need to be the centre of attention
- Rapidly shifting and shallow expression of emotions
- Suggestibility
- Physical appearance used for attention seeking purposes
- Impressionist 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 needs
- Lack of empathy
- Excess need for admiration
- Chronic envy
- Arrogant attitude

Obsessive-Compulsive

- Obsessed with detailed/organisation/order to the point that the key activity is lost
- Perfectionism impedes completion of tasks
- Extremely dedicated to work & efficiency to the loss of spare time activities
- Rigid about etiquettes of morality, ethics or values
- Not capable of disposing of worn out/insignificant thigs even without sentimental meaning
- Unwilling to pass on tasks to others unless surrendered to exactly their way of doing things
- Stingy spending towards self and others, stiffness and stubbornness

Personality Disorders Ctd

Paranoid

- Hypersensitivity and unforgiving attitude when insulted
- Unwarranted questioning of loyalty of friends
- Reluctance to confide in others
- Preoccupations with conspirational beliefs and hidden meanings
- Unwarranted perception of attacks on their character

Schizoid

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

Schizotypal

- Ideas of reference
  - Different from delusions, 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

Eponymous Psychiatric Syndromes

Charles-Bonnet Syndrome

Features

- Recurrent complex hallucinations in clear consciousness
  - Auditory or visual
- Insight preserved
- Usually on a background of visual impairment
  - ARMD
  - Glaucoma
  - Cataract
- Absence of any other neuropsychiatric disturbance

Risk Factors

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

Cotard Syndrome

- Belief that they (or parts of their body) are dead/non-existant
- Rare
- Associated with severe depression and psychosis
- Difficult to treat, significant problems due to patients deeming eating and drinking unnecessary

De Clerambault's Syndrome

- AKA erotomania
- Paranoid delusion where the patient believes a famous person is in love with them
- Most often seen in women

Othello's Syndrome

- Pathological jealousy where an individual believes their partner is cheating on them with no proof
- Socially unacceptable behaviours linked to the belief

Unexplained Symptoms

Somatisation Disorder

- Multiple physical (REAL) 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
- Patient refuses to accept reassurance or negative test results

Conversion Disorder

- Typically loss of motor or sensory function
- Patient doesn't consciously feign symptoms or seek material gain
- May be indifferent to their apparent disorder
  - Not backed up by evidence

Dissociative Disorder

- Process of separating off certain memories from normal consciousness
- Psychiatric symptoms in contrast to conversion disorder
  - Amnesia
  - Fugue
  - Stupor
- Dissociative identity disorder (DID) most severe form

Factitious Disorder

- AKA Munchausen's syndrome
- Intentional production of physical or psychiatric symptoms

Malingering

- Fraudulent simulation or exaggeration of symptoms with intention of financial or other gain

Alcohol Withdrawal

Mechanism

- Chronic alcohol consumption enhances GABA mediated inhibition in the CNS and inhibits NMDA type glutamate receptors
- Withdrawal leads to a sudden increase in the opposite effects

Features

- Start at 6-12 hours
  - Tremor
  - Sweating
  - Tachycardia
  - Anxiety
- Seizures (peak incidence 36 hours)

Delirium Tremens

- Peaks at 48-72 hours
  - Coarse tremor
  - Confusion
  - Delusions
  - Auditory & visual hallucinations
  - Fever
  - Tachycardia

Management

- Patients with a history of complex withdrawals (seizures, DTs) should be admitted for monitoring
- 1st line: long acting benzodiazepines
  - Chlordiazepoxide, diazepam
  - Lorazepam may be preferrable in hepatic impairment
- Carbamazepine also effective
- Phenytoin not as effective in alcohol withdrawal seizures

Benzodiazepines

Indications

1. 1st line seizures and status epilepticus
2. 1st line alcohol withdrawal
3. Sedation during interventional procedures
4. Short term treatment of severe & disabling anxiety or insomnia

Examples

Short Acting

- Midazolam

Intermediate Acting

- Clonazepam, lorazepam, alprazolam

Long Acting

- Chlordiazepoxide, diazepam

Mechanism

- Allosterically increase the likelihood/frequency of $GABA_A$ chloride channels opening

Side Effects

- Drowsiness, sedation, coma

Overdose

- No cardiovascular depression
- Airway obstruction due to loss of reflexes

Tolerance

- Dependence develops easily
- Maximum recommended duration of prescription 2-4 weeks

Withdrawal

- Symptoms occur for up to 3 weeks following withdrawal
  - Insomnia
  - Irritability
  - Anxiety
  - Tremor
  - Loss of appetite
  - Tinnitus
  - Perspiration
  - Perceptual disturbances
- Reduce dose in steps of 1/8 every fortnight
  - Often in equivalent dose of diazepam

Warnings/Contraindications

- Lower dose in elderly
- Avoid is neuromuscular disease or respiratory impairment
- May precipitate/worsen hepatic encephalopathy
  - Lorazepam preferred if use vital in hepatic failure

Interactions

- Additive with other sedative drugs, including opiates and alcohol
- Clearance reduced by CYP inhibitors

Antidepressants

Selective Serotonin Reuptake Inhibitor (SSRIs)

Common Indications

1. First line treatment for unresponsive/moderate/severe depression
2. Panic disorder
3. Obsessive compulsive disorder

Mechanism

- Inhibit reuptake of 5-HT from synaptic cleft, thereby increasing availability for neurotransmission
- Do not alter noradrenaline transmission (unlike TCAs) and cause less blockade of other receptors, therefore have fewer side effects with similar efficacy

Side Effects

- GI symptoms common
- Increased bleeding risk
  - PPI should be co-prescribed if also taking an NSAID
- Increased anxiety/agitation/suicidal thoughts and behaviour
- QT prolongation (citalopram & escitalopram)
- **Serotonin syndrome** (if in combination with other serotonergic drugs)
  - Autonomic hyperactivity
  - Altered mental state
  - Neuromuscular excitability
  - Responds to supportive care and withdrawal
- **Withdrawal**
  - GI upset
  - Neurological & influenza – like symptoms
  - Sleep disturbance

Contraindications/warnings

- Caution in:
  - Epilepsy
  - Peptic ulcer disease
  - Young pts
- Liver metabolism, dose ↓ in hepatic impairment
- Pregnancy
  - Small ↑ risk of CHDs in first trimester (greatest with paroxetine)
  - Risk of persistent pulmonary hypertension of the newborn in third trimester

Interactions

- Should not be combined with MAOIs (absolute) or other serotonergic drugs (relative) (eg tramadol) due to risk of serotonin syndrome
- Gastroprotection if taken with aspirin/NSAIDs
- Increased bleeding risk with anticoagulants
- Caution with other drugs that prolong QT (especially citalopram/escitalopram)

Prescription

- Citalopram and fluoxetine are preferred
- Sertraline preferred post-MI
- Fluoxetine preferred in children/adolescents

Serotonin & Noradrenaline Reuptake Inhibitors (SNRIs)

- Venlaxafine
- Duloxetine

Common Indications

1. Major depression where SSRIs are ineffective/not tolerated
2. Generalised anxiety disorder
3. Social anxiety disorder, panic disorder
4. Menopausal symptoms

Mechanism

- Inhibit reuptake of 5-HT and NA from synaptic cleft, thereby increasing availability for neurotransmission

Side Effects

- As SSRIs
- Venlaxafine prolongs QT interval and increases risk of ventricular arrhythmias
- Hyponatraemia
- Neurologic
  - Headache
  - Abnormal dreams, insomnia
  - Confusion
  - Convulsions

Contraindications/warnings

- Caution in elderly
- Dose reduction in hepatic or renal impairment
- Avoid venlaxafine in arrythmias

Interactions

- Adverse effects more common with other antidepressants (eg serotonin syndrome with SSRIs)

Mirtazepine (Atypical Antidepressant)

- Used in major depression

Mechanism

- Presynaptic α-2 antagonist which increases central noradrenergic and serotonergic transmission

Side Effects

- GI and neurological effects as SNRIs
- Postural hypotension
- Weight gain
- Mania

Contraindications/warning

- Cardiac disoders
- History of mania/psychosis/seizures
- Susceptibility to angle-closure glaucoma

Interactions

- Adverse effects more common with other antidepressants (eg serotonin syndrome with SSRIs)

Antidepressants Ctd

Tricyclic Antidepressants (TCAs)

Common Indications

1. Second line for moderate-severe depression
2. Neuropathic pain

Mechanism

- Inhibit reuptake of 5-HT & NA from the synaptic cleft, increasing availability for neurotransmission
- Block a wide array of receptors:
  - Muscarinic
  - H1
  - α-adrenergic
  - D2

Side Effects

- Anti-muscarinic
  - Dry mouth, constipation
  - Urinary retention
  - Blurred vision
- Anti-H1
  - Sedation
    - More so with amitriptyline, less so with lofepramine
- Anti-α
  - Hypotension
- Anti-D2
  - Breast changes
  - Sexual dysfunction
  - Extrapyramidal effects (rare)
- Arrhythmias, QT and QRS prolongation
- Convulsions, hallucinations, mania
- **Overdose**
  - Hypotension
  - Arrythmias
  - Conculvions
  - Coma
  - Respiratory arrest
- **Withdrawal**
  - GI upset
  - Neurological & influenza – like symptoms
  - Sleep disturbance

Contraindications/warnings

- Caution in:
  - Elderly
  - Cardiovascular disease
  - Epilepsy
  - Prostatic hypertrophy, glaucoma, constipation

Interactions

- Not to be prescribed with MAOIs
- Can augment antimuscarinic, sedative or hypotensive effects of other drugs

Choice of TCA

- Amitriptyline common in neuropathic pain/headache prophylaxis
- Lofepramine lower incidence of toxicity in overdose
- Amitriptyline & dosulepin most dangerous in OD

Monoamine Oxidase Inhibitors

- Used far less frequently than others
  - Dangers of dietary and drug interactions
  - Easier to prescribe when TCAs have failed

Mechanism

- Inhibit breakdown of monoamine neurotransmitters (NA, 5-HT, DA), increasing availability for neurotransmission

Side effects

- Dry mouth, constipation
- Urinary retention
- Blurred vision
- Sedation, confusion
- Weight gain
- Stimulant activity & hypertensive crisis
  - Tranylcypromine > phenelzine/isocarboxazid
- Hepatocellular injury
  - Phenelzine/isocarboxazid > tranylcypromine

Contraindications/warnings

- Cerebrovascular disease, severe cardiovascular disease

Interactions

- Severe hypertensive reactions to certain drugs/foods
  - Tyramine/dopa-rich foods

General Approach

- Treatment should be continued for 4 (6 in elderly) weeks before assessing response
- Following remission, antidepressants should be continued for at least 6 months (12 months in elderly/anxiety disorders)
- SSRI (citalopram/fluoxetine/sertraline in IHD) first line
- If failure to respond:
  - Increase dose
  - Different SSRI/mirtazapine
  - Other 2nd line agents:
    - SNRI
    - Lofepramine/other TCA
    - Reboxetine (selective noradrenaline reuptake inhibitor)
    - Moclobemide (reversible inhibitor of monoamine oxidase A (RIMA))
- Irreversible MAOIs should only be prescribed by a specialist
- Failure to respond to a second anti-depressant may require augmented therapy
  - Lithium
  - Aripiprazole
  - Olanzapine
  - Quetiapine
  - Risperidone
- Electroconvulsive therapy may be used in severe refractory depression

1st Generation/Typical Antipsychotics

- Haloperidol, chlorpromazine, prochlorperazine

Indications

1. Urgent treatment of severe psychomotor agitation
2. Schizophrenia, particularly when metabolic side effects of 2nd generations are problematic
3. BPAD, particularly in manic/hypomanic episodes
4. Nausea and vomiting, particularly in palliative care setting

Mechanism

- D2 receptor blockage in the CNS

Mesolimbic/Mesocortical Pathway

- Implicated in antipsychotic effects, not fully understood

Nigrostriatal Pathway

- Extrapyramidal effects

Tuberoinfundibular Pathway

- Hyperprolactinaemia

Chemoreceptor Trigger Zone

- Anti-emetic effects

Side Effects

Extrapyramidal Effects

- Acute dystonic reaction
  - Involuntary parkinsonian movements/muscle spasms
- Akathisia
  - State of inner restlessness
- Neuroleptic malignant syndrome
  - Rare, life threatening
  - Rigidity, confusion, autonomic dysregulation, pyrexia
- Tardive dyskinesia
  - After months/years
  - Pointless, involuntary and repetitive movements
  - Disabling and may not resolve on withdrawing drug

Hyperprolactinaemia

- Menstrual disturbance
- Galactorrhoea, breast pain
- Erectile dysfunction

Others

- Drowsiness, sedation
- Hypotension
- QT prolongation

Warnings/Contraindications/Interactions

- Reduce dose in elderly
- Avoid in dementia/Parkinson's disease
- Other drugs prolonging QT interval
- Lots & lots more interactions, use BNF

2nd Generation/Atypical Antipsychotics

- Quetiapine, olanzapine, aripiprazole, risperidone, clozapine

Indications

1. Urgent treatment of severe psychomotor agitation
2. Schizophrenia, particularly when EPS have complicated use of 1st generations, or when negative symptoms are prominent
3. BPAD, particularly in manic/hypomanic episodes

Mechanism

- Blockade of a variety of receptors
  - D2 – "looser" than 1st generations
  - D3, D4
  - 5-HT
- Pathways as per 1st generations
- More effective in "treatment-resistant" schizophrenia and negative symptoms

Side Effects

Extrapyramidal Effects

- Less so than 1st generations

Metabolic Effects

- Weight gain
- DM
- Dyslipidaemia

Hyperprolactinaemia

- Particularly risperidone
- Menstrual disturbance
- Galactorrhoea, breast pain
- Erectile dysfunction

Others

- Drowsiness, sedation
- Hypotension
- QT prolongation
- **Clozapine**
  - Agranulocytosis
  - Myocarditis

Warnings/Contraindications

- Caution in cardiovascular disease/metabolic syndrome
- **Clozapine** must not be used in severe heart disease or neutropenia

Interactions

- Other dopamine-blocking anti-emetics
- Other drugs prolonging QT interval
- Lots & lots more interactions, use BNF

Indication for Clozapine

- Schizophrenia not controlled by the use of two or more antipsychotics, including a 2nd generation
- Requires FBC monitoring

Lithium

Indications

1. Primary prophylaxis in BPAD
2. Adjunctive treatment in unipolar depression

Mechanism

- Not full known
- May interfere with inositol triphosphate/cAMP formation
- Simulates inhibitory neurotransmission and inhibits stimulatory neurotransmission

Side Effects

- Narrow therapeutic window (0.4-1.0mmol/L)
- Nausea, vomiting, diarrhoea
- Fine tremor
- Nephrogenic diabetes insipidus
- Thyroid enlargement, hypothyroidism
- T wave flattening/inversion
- Weight gain
- Idiopathic intracranial hypertension
- Leucocytosis
- Hyperparathyroidism & hypercalcaemia

Monitoring

- Sample should be taken 12 hours post-dose
- After starting, levels should be performed weekly and after each dose change until levels are stable
- Thyroid and renal function should be checked every 6 months
- Patients should be issued with information booklet, alert card and record book

Contraindications/Warnings

- Significant renal impairment
- Sodium depletion
- Dehydration
- Significant cardiovascular disease

Interactions

- Thiazides, NSAIDs, ACEi, tetracyclines & metronidazole increase level
- K-sparing diuretics and theophylline decrease level
- Loop diuretics and CCBs may increase or decrease level

Lithium Toxicity

Acute/Acute-on-Chronic

- Can be precipitated by dehydration or medications causing dehydration/renal impairment
  - Diuretics
  - NSAIDs
  - ACEi
- Often occurs in vulnerable populations
  - Elderly, poor living conditions

Gastrointestinal Features

- Nausea, vomiting, diarrhoea
- Can cause dehydration, worsening renal function and lithium clearance

Cardiac Features

- Bradycardia and QT prolongations, but dangerous arrhythmias are rare

Neurological Features

- Develop late as drug must be absorbed into CNS
- Sluggishness, ataxia
- Confusion, agitation
- Neuromuscular excitability
  - Coarse tremors, fasciculations, myoclonic jerks
- Severe toxicity:
  - Seizures
  - Nonconvulsive status epilepticus
  - Encephalopathy

SILENT

- Syndrome of irreversible lithium effectuated neurotoxicity, persists despite removal of the drug
  - Months, rarely years
- Demyelination implicated
- Features:
  - Cerebellar/brainstem dysfunction
  - Extrapyramidal symptoms
  - Dementia

Chronic

- Susceptible due to NDI caused by lithium
- More common in older patients

Neurological Features

- Identical to acute poisoning, but may be the first feature

Renal

- Nephrogenic diabetes insipidus

Management

Supportive Care

- ABCs, hydration
- GI decontamination

Haemodialysis

- If:
  - >5mmol/L
  - 4 in renal impairment
  - 2.5 with significant symptoms
- Rebound effect – check levels after 6 hours

Electroconvulsive Therapy

Indications

- Severe refractory depression
  - Catatonia
  - Psychotic symptoms

Side Effects

Short Term

- Headache
- Nausea
- Short term memory impairment
- Memory loss of events just prior to ECT
- Arrhythmia

Long Term

- Some patients report impaired memory

Contraindications

- Absolutely contraindicated by raised intracranial pressure