*Getting Started in Psychiatry:*

*A guide for junior registrars*

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**Introduction**

Getting started in psychiatry can seem daunting to begin with. However, the general principles of psychiatry are much the same as with the rest of medicine, and a strong grounding in general medicine is very important to the practice of psychiatry.

That said, there are processes that are unique to psychiatry, including how we assess patients, a need to understand the legal context to our work, and a focus on psychological factors that help us understand our patients in a broader way.

The purpose of this handbook is to give you an overview of these processes. I have added numerous clinical examples to help make theory relevant to practice. Gaining experience in applying these principles will inevitably come with time, as you see more patients, learn from their experiences, as well as from your consultants.

This handbook is intended to be an introduction to psychiatry, and it is important to read more widely to increase your breadth of understanding of various topics relevant to psychiatry. I have included some references and recommended readings at the end of each section. It is particularly important that you familiarise yourself with the various RANZCP clinical practice guidelines.

After learning the key principles outlined in this handbook I think that you will be in a good position to start working on the afterhours roster, although I recommend doing a few “buddy shifts” with more experienced registrars first.

During your training, you will inevitably encounter situations where you are not sure what to do. The most important thing to remember is that if you need help, then you should ask for it, even if you think the question is “silly”.

Speak to your consultant on the ward, or call the on-call consultant if you find yourself not sure of what to do. No-one expects you to know everything, and it is better to ask for help rather than doing something which may not be the best thing for the patient. It is also not healthy for you to go home at the end of a working day worrying about whether you did the right thing or not.

I wrote this handbook whilst an advanced trainee transitioning into the role as a consultant at Blacktown Hospital, and I hope that you find it to be a useful resource.

I would like to gratefully acknowledge Dr Greg De Moore, Dr Anu Kataria, and Dr Chris Ryan for their assistance and support during the development of this handbook.

Please feel free to email me with any corrections or suggestions to assist with any future revisions of this handbook.

Dr Varun Kumar

Staff Specialist Psychiatrist

Blacktown/Mt Druitt Hospitals

Sydney West and Greater Southern Psychiatry Training Network

Varun.Kumar@health.nsw.gov.au

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1. **The mental state exam**

This chapter will give you an idea of how to do a mental state exam, and will provide some examples.

1. **The formulation**

This chapter begins by discussing some important theories that allow us to conceptualise a patient’s presentation, and then discusses how to formulate a case.

1. **An approach to after-hours shifts**

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1. **Managing psychiatric disorders**

This chapter will cover the basics of managing individual psychiatric disorders, including biological, psychological, and social interventions.

**Chapter 1: The language of psychiatry**

***Why is it important to know the language of psychiatry?***

When we all started studying medicine, we were, in many ways learning a new language. Each specialty of medicine has its own specific language.

For instance, there are some core terms needed to practice cardiology. These include terms like:

* Dyspnoea
* Orthopnoea
* Paroxysmal nocturnal dyspnoea
* Arrhythmia
* Acute coronary syndrome….and so on

It would be very difficult to assess and treat someone’s heart failure without knowing the language of cardiology.

Psychiatry itself has its own language. This language includes:

1. Terms that we use to define “what we hear” during an interview with a patient
   * For example, when we hear about a patient’s delusions, the disorganisation of their speech (thought disorder), or when they describe to us the content of their hallucinations.
2. There are also terms that we use to describe “what we saw” during an interview with a patient
   * For instance, when we look at a patient’s facial expressions (affect), if there are any changes in movements related to their mental state (psychomotor changes), or if they seem to be hallucinating despite the patient denying this (responding to internal stimuli)

In psychiatry, the difference between signs and symptoms can be a bit blurred, as many of our patient’s do not recognise they are mentally ill. For instance, few patients will present to hospital stating that they have delusions.

Knowing the language of psychiatry allows us to describe the symptoms a patient presents with, as well as describe what signs you observed when you assessed the patient. Together, these are major components of the mental state exam, which assists us in diagnosing our patients.

***What do people mean when they say phenomenology?***

You will hear your consultants talk about “phenomenology”, and by this they mean the terms that we use in psychiatry to describe a patient’s direct experience. These terms make up the language of psychiatry.

It is particularly important in psychiatry to know these terms well, as they are the primary means that we use to diagnose our patients. There are no blood tests or neuroimaging techniques available to reliably diagnose most of the disorders that we treat.

***What are the important terms in the language of psychiatry?***

The following is a list of important terms which we use in psychiatry to examine a patient’s experience. There are some terms that you should learn quickly, as they are essential terms in the language of psychiatry. Without them it would be difficult to function in day to day practice. I have put these terms in bold to help prioritise your learning. I have also added some comments in italics to help understand the terms and to provide a clinical context.

The list is structured into headings we use in the mental state exam, which we will talk about in more detail later on in another chapter.

It is worth clarifying at the outset, the definition of the term “psychosis” (as it will come up throughout this chapter):

**Psychosis**

* 1. This refers to a state in which the individual is separated from reality, and is characterised by delusions, hallucinations, as well as disorganisation in thought and behaviour. Each of these is discussed below.

*Terms that we use to describe a patient’s manner and attitude to the interviewer during an assessment:*

1. **Guarded**
   1. The patient is reluctant to give information, usually due to a degree of paranoia

*Terms that we use to describe patient’s movements:*

1. **Psychomotor agitation**
   1. There is excessive motor activity and restlessness
      1. *Restless patients who fidget, or cannot stay still may be intoxicated with illicit drugs (e.g. stimulants), may have an anxiety disorder, an “agitated depression”, or may have side-effects to antipsychotic medication (akathisia)*
2. **Psychomotor retardation**
   1. Decrease in spontaneous movement and slowness in voluntary movement
      1. *This is classic of patients with severe depression, who appear “heavy” with slow movements. This can also be a feature of parkinsonism, which may be related to the use of antipsychotics*
3. Catatonia
   1. Catatonia is a syndrome of motor dysregulation which may have a number if aetiologies (e.g. severe depression, schizophrenia, benzodiazepine withdrawal, or central nervous system infections). Motor signs of catatonia include:
      1. Immobility
         1. Absence of motor activity
      2. Mutism
         1. There is a failure to speak despite the ability to do so
      3. Posturing
         1. The patient may adopt an unusual position for significant periods of time
      4. Waxy flexibility
         1. The patient allows an examiner to adjust their posture and maintains the posture for a long period of time
      5. Mitmachen
         1. The patient allows the examiner to place their limbs in any position, but they return back to their original position when the examiner lets go
            1. *The extreme version of mitmachen is called mitgehen in which the examiner only needs to exert very slight pressure to cause the patient’s limb to move*
      6. Negativism
         1. The patient resists movements induced by the examiner
            1. *The extreme version of negativism is called gegenhalten. The examiner is unable to move a patient’s limb as they resist this movement with equal force*
      7. Echopraxia
         1. The patient copies the examiner’s movements, despite being asked not to
      8. Echolalia
         1. See below under “speech production”
4. **Akathisia**
   1. A subjective feeling or restlessness which may manifest as fidgeting leg movements or pacing
      1. *It is important to assess for akathisia as it can be an extremely distressing sensation which may potentially make an individual more likely to harm themselves or become aggressive towards others*
5. **Dystonia**
   1. Refers to sudden and often painful contractions of muscle groups
      1. *This may manifest as painful contraction of the extra-ocular muscles, leading to an oculogyric crisis (sometimes referred to as “lookups”), contraction of the jaw (trismus), back muscles (opisthotonus), or even to laryngeal dystonia which can threaten the airway*
6. **Tardive dyskinesia**
   1. Involuntary, repetitive movements which typically affect orofacial muscle groups leading to biting, chewing, or lip-smacking movements
      1. *Tardive dyskinesia can also affect other muscle groups e.g. leading to a “swaying movement” of the trunk. It is a consequence of long-term antipsychotic exposure, and may be irreversible*

*Terms that we use to describe a patient’s speech:*

*Speech coordination:*

1. **Dysphasia**
   1. There is an inability to utilise language, in terms of comprehension or expression
      1. *They two major forms of aphasia are Broca’s aphasia and Wernicke’s aphasia. Broca’s aphasia leads to an expressive dysphasia, while Wernicke’s aphasia leads to a receptive aphasia. Aphasic patients may present as thought disordered, but are not typically psychotic*

*Speech articulation:*

1. **Dysarthria**
   1. Abnormal speech articulation to the extent that sounds are distorted or slurred
2. Stammering
   1. The flow of normal speech is interrupted by pauses and the interjection of repeated words or parts of words
3. Stuttering
   1. The patient has difficulty in uttering speech sounds at the beginning of words

*Speech production:*

1. **Pressured speech**
   1. The patient’s speech is rapid and difficult to interrupt
      1. *This may be a manifestation of mania or hypomania*
2. **Poverty of speech**
   1. There is a reduced quantity of speech
      1. *This is a common mental state finding in patients which chronic schizophrenia who have prominent negative symptoms. It may also be seen in certain types of dementia (e.g. vascular dementia or frontotemporal dementia)*
3. Logorrhoea
   1. There is an increased quantity (but not rate) of speech
4. Thought blocking
   1. The patient suddenly stops what they are saying mid-sentence
      1. *Thought blocking is a first rank symptom of schizophrenia when it is associated with thought withdrawal. It may also be associated with petit mal seizures*
5. Echolalia
   1. The patient repeat’s the examiner’s words, despite being asked not to (i.e. they are “parrot like”)
      1. *Echolalia is a motor manifestation of catatonia*

*Terms that we use to describe a patient’s emotional state:*

1. **Mood**
   1. Refers to a person’s pervasive internal emotional state
      1. *For instance, a patient may report that they have a “low mood”, that they are “angry”, or are feeling very happy or “on top of the world”*
2. **Euthymia**
   1. Euthymia is a term that describes a “normal” mood that is neither depressed nor manic
3. **Emotional lability**
   1. There are sudden rapid shifts from one emotional state to another
      1. *For instance, a patient may suddenly start crying, but a few seconds later start laughing. In its true form, emotional lability may be indicative of an organic pathology, such as certain types of dementia or in patients with frontal lobe impairment due to a cerebral metastasis, head injury, or other causes of frontal lobe damage*
4. **Mania**
   1. A sustained period of elevated mood with psychotic symptoms or severe disturbance in functioning
      1. *Mania is a defining feature of bipolar 1 disorder*
5. **Hypomania**
   1. A sustained period of elevated mood with no psychotic symptoms or severe disturbance in functioning
      1. *Hypomania is a defining feature of bipolar 2 disorder*
6. **Anxiety**
   1. Refers to fear towards a perceived threat
      1. *Each of the anxiety disorder is associated with fear towards a different threat. For instance, people with social anxiety fear being judged by others, whereas people with panic disorder fear having more panic attacks*

*Terms that we use to describe a patient’s facial expression (affect), which is an objective measure of a patient’s mood:*

1. **Affect**
   1. The external manifestation of a patient’s mood
      1. *“Affect is to mood as weather is to climate”*
2. **Perplexed affect**
   1. The patient appears puzzled or bewildered
      1. *The perplexed patient appears anxious as if they were confused or unsure about what is happening to them or around them. This is an affect that is often seen in psychotic patients, who are struggling to differentiate what is real or unreal*
3. **Incongruous affect**
   1. An affect that seems odd given what the person is speaking about
      1. *An example of an incongruous affect would be a patient who smiles when talking about the death of a close loved one*
4. **Reactive affect**
   1. This refers to an affect that is normal in range, intensity, and is congruous
      1. *A reactive affect is usually used to describe a patient who is smiling, warm, and laughing appropriately. This usually infers that the patient is euthymic*
5. **Emotional blunting (flat affect)**
   1. There is the loss of emotional expression in gesture, facial expression, and tone
      1. *The patient appears “blank” with no show of emotion. A “blunted affect” is usually used to describe patients with schizophrenia who have negative symptoms, while a “flat affect” is usually used to describe depressed patients*
6. **Restricted affect**
   1. There is a loss of normal variability to affect
      1. *The patient may smile at times, but generally appears quite subdued. Otherwise known as a “constricted affect”*

*Terms that we used to describe a patient’s thoughts:*

*Terms used to describe a person’s thought content:*

1. **Poverty of content**
   1. Reduced amount of thinking which manifests as poverty, or reduced amount, of speech
2. **Overvalued idea**
   1. An idiosyncratic belief which is firmly held, but not fixed, and which dominates an individual’s thinking
      1. *An overvalued idea has the quality of a delusion, but is less intense, and not fixed (i.e. the patient can recognise that the belief may not be true)*
3. **Ruminations**
   1. Repetitive and pointless internal debates, that have an obsessional and philosophical quality
      1. *Depressed patients often ruminate about negative topics (e.g. whether they are a bad person or not*)
4. Magical thinking
   1. An irrational belief that a particular action is associated with an unlikely outcome
      1. *For example, believing that stepping on a crack will cause back luck. A more psychotic example would be a patient who believes that by clapping their hands that they will cause the world to end*
5. **Delusion**
   1. “Overriding, rigid, false convictions, which create a private reality for the individual that requires no proof” 1
      1. *Delusions are complex symptoms that reflect an inability of the individual to make logical, reality based connections about the world around them. More is mentioned about delusions at the end of the chapter*
      2. Breaking down this definition:
         1. Delusions are usually “overriding”, meaning that they tend to preoccupy the patient and dominate their thought content
            1. It is for this reason that most delusions are easily apparent, as the patient will report them early on, or already would have acted upon them
            2. It is worth keeping in mind that some delusions are more subtle and may be more in the “background” of a patient’s mind. They may appear to function in day to day. These types of delusions are harder to treat, and are more characteristic of delusional disorders
      3. Delusions are rigid and require no proof
         1. Meaning that the person believes the delusion is true, and will not accept evidence to the contrary. There is no point in arguing with a patient about their delusion, and it is not helpful to try. A patient may provide what they believe is evidence for their belief, but this “proof” itself is delusional
      4. Delusions are false
         1. This is a defining feature of all delusions i.e. the belief is not true. Some delusions are obviously bizarre e.g. a patient believing that their partner has been replaced with an alien intruder. Some delusions are non-bizarre and within the realms of possibility e.g. that their partner is being unfaithful to them. These delusions are often more difficult to treat
      5. Delusions create a private reality for the patient
         1. This highlights the fact that delusions are typically held only by the person experiencing them, as if the patient were within their “own world”. An exception would be a folie e deux (or “shared psychotic disorder”), in which a psychotic patient’s delusional beliefs are shared by another patient who is typically passive and susceptible to suggestion, but not themselves psychotic
   2. *Terms used to describe the complexity of delusions*:
      1. **Systematised delusions**
         1. A complex, multilayered, and interrelated delusional system
   3. *Terms used to describe different types of delusions:*
      1. Primary delusions (autochthonous)
         1. Delusions arising de novo in a sudden, fully formed way, and are not related to past experience
            1. *For instance, suddenly believing that one’s neighbours are poisoning you*
      2. Secondary delusions
         1. Delusions that are linked to past experience
            1. *For instance, drinking odd tasting soup and then believing that one’s neighbours are poisoning you*
      3. **Mood congruent delusions**
         1. Delusions that are in keeping with an individual’s internal emotional state
            1. *Put simply, a mood congruent delusion is one which is linked to the patient’s mood. Manic people tend to have “happy delusions” e.g. that they are president of the USA, while depressed people tend to have “sad delusions” e.g. believing that they are dead or dying*
      4. **Nihilistic delusions**
         1. This is an example of a mood congruent delusion in which the patient believes they are dying, decaying, devoid of an important body part or that they are dead
            1. *For instance, a severely depressed patient who believes that they are unable to swallow water because they have no throat*
            2. *Nihilistic or hypochondriacal delusions when part of a psychotic depression is referred to as Cotard’s syndrome. It is more common in the elderly*
      5. **Delusions of guilt**
         1. The patient feels guilt for events which are not related to them, such as crimes or reprehensible acts
            1. *An example would be a young man who is psychotically depressed and believed that he was responsible for the events of “9/11”*
      6. **Grandiose delusion**
         1. Patients are convinced that they have great talents, are prominent in society, or possess supernatural powers
            1. *An example would be a manic patient who believed that they were the Prime Minister of Australia*
      7. Delusional mood
         1. A state of unease during which the immediate environment feels strange or ominously changed
            1. *The patient feels that something strange is going on, but cannot explain what exactly. This feeling may evolve into a delusional system*
      8. **Delusions of reference**
         1. Delusions that casual, external events are significantly linked to the individual
            1. *Classically the patient believes that information on the TV or radio are relating to them. They may also believe that people on the streets are talking about them*
      9. Delusional perception
         1. Attributing delusional significance to a normal perception
      10. **Delusions of control (passivity phenomena)**
          1. Delusions that one’s feelings, actions, or bodily processes are controlled by an external agency
             1. *In passivity of affect the patient believes that their emotions are controlled by an external agency*
             2. *In passivity of volition and impulse the patient believes that their actions are controlled by an external agency*
             3. *In somatic passivity* the *patient believes that their bodily sensations are being controlled by an external agency*
      11. **Delusions of thought control**
          1. The belief that an individual’s thoughts are controlled by an external agency
             1. *In thought insertion the patient believes that an external agency has placed thoughts into their mind*
             2. *In thought withdrawal the patient believes that an external agency has taken thoughts out of their mind (which may manifest as thought-blocking)*
             3. *In thought broadcasting the patient believes that their thoughts are accessible to others*
      12. Delusions of misidentification
          1. Capgras delusions
             1. A familiar person is believed to be replaced by an identical looking imposter

*For instance, the patient believes that their mother is not actual their mother but instead an alien in disguise*

* + - 1. Fregoli delusions
         1. Unfamiliar persons are thought to be well known individuals

*For instance, a patient on the ward believing that a female staff member is actually her mother*

* + 1. **Persecutory delusions**
       1. Commonly referred to as “paranoid delusions”
          1. The individual believes that they are being pursued, spied upon, or harassed

*For instance, the patient that believes that the secret service is monitoring their phone calls to collect evidence against them*

* + 1. **Delusional jealousy**
       1. Delusional beliefs about the fidelity of their partner
          1. *A patient may believe that their partner is cheating on them despite no evidence to support this (or a series of referential delusions supporting the belief e.g. that their partner coming home late means they were with their other partner). This may be part of a delusional disorder, and is typically viewed as an especially dangerous delusion as it may lead to behaviours such as stalking, assault, or even homicide in extreme cases*
    2. Delusions of love
       1. Otherwise known as erotomanic delusions
       2. The patient is convinced that another person is in love with them, even though this is clearly not the case
       3. This may be seen as the “opposite” of delusional jealousy. An example might be a patient who is convinced that a nurse looking after them on an inpatient ward is in love with them, and who tries to get in contact with them once discharged to pursue a relationship.
       4. De Clarembault’s syndrome is the delusion of being secretly loved by someone of higher social status (e.g. a famous movie star)
    3. Hypochondriacal delusion
       1. The conviction that one has a serious disease
    4. **Somatic delusion**
       1. Delusions that pertain to bodily functioning, or appearance
          1. For instance, a patient who believes that she is pregnant despite having numerous negative pregnancy tests
    5. Delusions of infestation
       1. Delusions that one’s skin is infested by parasites (delusional parasitosis)
          1. *This is otherwise known as “delusional parasitosis”, or Ekbom’s syndrome if associated with a delusional disorder. The source of referral may be from a dermatologist*
    6. Delusional memory
       1. The attribution of delusional significance to a memory or the recollection of a false memory

1. **Obsessions and compulsions**
   1. Obsessions are recurrent, intrusive thoughts that are unwanted, that are difficult to resist and cause marked anxiety
   2. Compulsions are repetitive thoughts or actions that are not useful or enjoyable but reduce the anxiety associated with an obsession
      1. *These symptoms are classically associated with obsessive compulsive disorder. Obsessions are sometimes referred to as “egodystonic”, meaning that they are unwanted. They are classically linked with compulsions. A typical obsession would be a patient who keeps having unwanted thoughts that their hands are contaminated with dangerous germs, but realises that this thought is excessive. The associated compulsion would be hand-washing.*

*Description of thought disorder:*

1. “Thought disorder” (otherwise known as formal thought disorder)
   1. Thought disorder can be a difficult clinical sign to identify until you have some practice. Thoughts are generally considered to be “goal-oriented”. This means that the statements we make reach a goal, have a point to them, and make sense. This style of thought form is logical. Individuals with psychosis can find it difficult linking together thoughts in a coherent way, which can manifest as thought disorder. Thought disorder can be quite obvious, but it can be quite subtle. When interviewing such a patient you may find yourself confused, wondering whether you asked the right question, or why the history doesn’t make sense. If you feel this way, it may be a reflection that the patient has an underlying disorder of thought form.

*Terms used to describe thought disorder:*

1. **Derailment (or “loosening of associations”)**
   1. The individual begins by answering the question which is asked, but then deviates into topics which are unrelated, and may continue with this pattern until interrupted by the examiner
      1. *Doctor “How are you feeling?”*
      2. *Patient “I am feeling quite well, thank you. It’s been a lovely morning hasn’t it? I remember when I was quite young and in primary school when I would get into trouble for talking too much….”*
2. **Circumstantiality**
   1. The individual eventually answers the question which is asked, but only after providing an excessive amount of irrelevant details
      1. *Doctor “How are you feeling?”*
      2. *Patient “I got up this morning and saw the great weather. So much to do. I need to clean my room, then plan my day. I might go to the shops and buy some new clothes, maybe have a coffee. I could visit the museum and visit my friends. Yes. I am feeling great!”*
3. **Flight of ideas**
   1. The individual’s speech is rapid, and jumps from topic to topic rapidly. Initially the links between ideas are apparent, but become progressively more difficult to follow. Terms may be linked together because they sound similar (“clang association”)
      1. *Doctor “How are you feeling?”*
      2. *Patient “I am feeling great. Being in hospital is actually quite fun. I must go for a run, as exercise is very important. Staying true to one’s self is also important. I must stand up for myself, stand tall and yell. What a quiet world it is….”*
         1. Flight of ideas is typically associated with mania
4. **Tangentiality**
   1. The patient’s response to a question is not relevant at all relevant to the question which is asked
      1. *Doctor “How are you feeling?”*
      2. *Patient “It’s quite strange how the lights flicker at night…”*
5. Incoherence.
   1. A breakdown of the relationships between words in a sentence so that the sentence makes no sense
      * 1. *Doctor “How are you feeling”*
        2. *Patient “Blue caterpillar pen and sadness”*
           1. *Incoherence may be a sign of severe psychosis, but always keep in mind other possibilities such as a stroke leading to aphasia*

*Terms used to describe perceptual disturbances:*

1. **Hallucination**
   1. A hallucination refers to a sensory perception in the absence of a stimulus
      1. *A typical example would be an individual who hears the voice of his dead mother. There is the perception of hearing his dead mother, but no stimulus. Some patients with psychotic symptoms will put cotton into their ears to reduce the intensity. This is, unfortunately, not effective as the perception arises through direct stimulation of language centres in the brain and bypasses structures in the ear and eight nerve*
   2. Hallucinations can occur in the full range of sensory modalities:
      1. Auditory
         1. *Typically, the patient reports “hearing voices”. It is worth keeping in mind that some patients can become quite offended or irritated when asked about hearing voices, as they see it as a sign of “being crazy”*
      2. Visual
         1. *Keep in mind the possibility of delirium if the patient has visual hallucinations*
      3. Tactile (to do with touch)
      4. Gustatory (taste)
      5. Olfactory (smell)
         1. *Olfactory hallucinations may be associated with temporal lobe epilepsy*
   3. Hypnogogic hallucinations
      1. These occur on falling asleep *“gogic” as in go to sleep*
   4. Hypnopompic hallucinations
      1. These occur on waking
         1. *Both hypnogogic and hypnopompic hallucinations may be normal experiences associated with sleep*
   5. Extracampine hallucination
      1. There is a false perception outside the limits of the normal sensory field
         1. *For instance, a patient in Sydney who believes that she can hear her brother in Greece talking to her*
   6. Lilliputian hallucinations
      1. Visual hallucinations of small objects or creatures
         1. *Typical of delirium tremens, Lewy body dementia, migraines, or Charles Bonnet Syndrome (hallucinations due to deficits in the visual field)*
   7. **Elementary hallucinations**
      1. Hallucinations which are simple and unformed
         1. *Such as flashes of light, or non-specific sounds*
   8. **Illusions**
      1. These refer to misinterpretation of a stimulus
         1. *For instance, a patient hearing her brother’s voice, but turned around to see that it was only someone that sounded like her brother*
   9. Autoscopic hallucinations
      1. Seeing one’s own image as a hallucination
   10. **Pseudohallucinations**
       1. A perception that is recognised as originating from an inner space, and not from the sensory organs
          1. *Some patient’s will report “hearing voices”, but on further questioning are referring to strong internal thoughts which they recognise are not “heard” as sounds. These strong thoughts often are often negative in nature and are self-critical. They are more commonly seen in patients with personality disorders who have experienced developmental trauma. It is important, therefore, to keep in mind that “hearing voices” does not automatically equate with being psychotic*
2. Depersonalisation
   1. Alteration in the perception of self, leading to a sense of detachment from one’s own body or mental processes
3. Derealisation
   1. An alteration in the perception of the environment, leading to a sense that it is strange or unreal
      1. *Both depersonalisation and derealisation may be associated with severe anxiety states, but also keep in mind organic causes such as temporal lobe epilepsy*

*Terms used to describe cognition:*

1. **Clouding of consciousness**
   1. The patient is unable to initiate, sustain, and shift attention. They appear distractible, and may not be aware of the presence of others in their immediate vicinity.
      1. *For instance, a patient who is staring at the ceiling and responding to visual hallucinations and seems unaware of his doctor’s presence (this is an extreme version of clouding of consciousness)*
2. Executive dysfunction
   1. This refers to disruption of frontal lobe functions that regulate planning, organisation and problem solving
      1. *Executive dysfunction is one of the core cognitive deficits seen in schizophrenia, and it also associated with certain dementias, such as vascular dementia*

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**CHAPTER 2: INTRODUCTION TO PSYCHIATRIC DISORDERS**

***What disorders do we treat in psychiatry?***

As a junior registrar it is important to learn about, and to be able to recognise, the major psychiatric disorders. As with all other areas of medicine, this involves “pattern recognition”, which takes some time and experience. Your first year of training takes place in acute adult inpatient units, which is a great opportunity to develop these skills which you will develop further throughout your training.

First of all, one might want to consider the definition of a mental illness. One definition of mental illness is:

“*Any abnormal thought, mood, or sensory impression which is persistent and causes significant distress, either subjectively or objectively” 1*

The qualifier of “subjectively or objectively” reflects the fact that patients will not always be aware of their illnesses. The depressed patient will often subjectively report low mood, but the psychotic patient with delusions believes the delusions are true, so the diagnosis of psychosis is usually made objectively by a clinician.

One way to conceptualise psychiatric illnesses is by visualising them using the “diagnostic hierarchy” which is often represented using a pyramid:

***“Other psychiatric disorders” e.g. eating disorders, somatoform disorders, dissociative disorders etc.***

It is very useful to keep in mind this hierarchy whenever you see a patient. That way you will not forget to ask the important questions for each disorder, and your mind will be open to a range of possible diagnoses.

It is also important to keep in mind “other psychiatric disorders” which might not fit so neatly into the pyramid, but which are nonetheless important, such as eating disorders, autism spectrum disorders, as well as forms of abnormal illness behaviour (somatoform disorders, factitious disorders, conversion disorders).

The organisation of the pyramid and always keep in mind the following when you see a patient:

*Always try to reach the “top most diagnosis”*

This is linked to the concept known as “Ockham’s razor”, which means that as much as possible a single explanation should be found for multiple occurrences.

For instance, consider a patient who presents to the emergency department with chest pain radiating down their left arm with associated nausea, shortness of breath, and diaphoresis.

One diagnostic approach would be to make “multiple diagnoses”, such as:

* Diagnose gastro-oesophageal reflux because the patient has chest pain and nausea
* Diagnose pneumonia because the patient is short of breathe and diaphoretic
* Diagnose musculoskeletal injury to explain the left arm pain

This approach is clearly quite dangerous and is not going to guide management effectively when the patient likely has a life-threatening myocardial infarct, which should be excluded as a priority.

Therefore finding a unitary diagnosis is important. Looking at the hierarchy:

*Diagnoses high up the pyramid can explain symptoms below them*

Consider the following common examples:

1. *An intern is called by nursing staff on a medical ward to review an agitated 45-year-old male patient named Sachin. On review, she notes that the Sachin is suspicious, appears somewhat confused, and is complaining of seeing small men in the corner of his room. He is also tachycardic, which the intern assumes is due to his fearful state. She concludes that he is “acutely psychotic” and charts him for regular haloperidol, with suggestion that the psychiatry team review him in the morning. In actual fact, it turned out that Sachin consumed alcohol heavily, and was having a severe withdrawal reaction with psychotic features (“delirium tremens”). As his alcohol withdrawal was not explored or treated with benzodiazepines, he had a series of seizures requiring ICU admission.* 
   1. Looking at the hierarchy: In this case alcohol withdrawal accounted for Sachin’s confusion, and psychotic symptoms
2. *An intern is called by nursing staff on a medical ward to review a 74-year-old female patient named Jane. The nurses are worried because the patient is experiencing visual hallucinations. The intern arrives on the ward and discovers that the patient has a history of Lewy Body Dementia. On assessment, Jane’s husband tells the intern that his wife often experiences visual hallucinations that small people or animals are in his room. They tend not to bother Jane, who usually settles with some reassurance. Jane is sleeping well, and her concentration is generally intact throughout the day. The intern assumes that Jane is experiencing a late onset schizophrenia as she has visual hallucinations. As a result, she starts Jane on risperidone 1mg nocte, with the plan for psychiatry to review her after the weekend*

*The psychiatry team review Jane on Monday and cease the risperidone as it has caused the patient to develop severe Parkinsonism, and it is known that these hallucinations are a part of her dementia. They seek an old age psychiatry opinion, and start donepezil, a cognitive enhancing medication used in certain types of dementia, and the hallucinations resolve*.

* 1. Looking at the hierarchy: In this case the visual hallucinations were a part of the patient’s diagnosis of dementia, and not a psychotic disorder such as late onset schizophrenia. Patient’s with Lewy Body Dementia are very sensitive to antipsychotics, which is why Jane developed severe movement side-effects. By treating the dementia, the hallucinations resolved. The patient was sleeping well and her concentration intact, making delirium a less likely cause for her hallucinations
     1. The term “organic psychiatric disorder” generally refers to dementia and delirium, both of which can cause a variety of psychiatric symptoms, and be associated with psychotic symptoms. This is an old style of classification that persists to this day but, of course, all the psychiatric disorders have a biological basis

1. *A psychiatry registrar is seeing a 22-year-old patient, Abram, in the community. Abram was referred to the clinic because he is finding it difficult to socialise with new people, and he reports that unfamiliar people make him very anxious. The registrar makes the diagnosis of social anxiety disorder, and comes up with a basic CBT therapy involving exposure. After twelve sessions, the registrar wonders why the CBT has not been helping.*

*Abram, who now feels more comfortable with the registrar, tells him that he is worried about being with new people because he fears that people can read his thoughts. He has also been hearing people taking about him in a hurtful way when in his room alone for about nine months. The registrar takes some collateral from the patient’s family who report that he hasn’t been performing well at university for a year and has been more withdrawn.*

*The registrar revises his diagnosis to schizophrenia. He commences Abram on risperidone, but continues to use CBT strategies to target the psychotic symptoms. The patient recovers to the extent that he can continue his studies and be more comfortable in social situations.*

* 1. Looking at the hierarchy: In this case, the patient had schizophrenia which appeared to present as an anxiety disorder. Identifying that schizophrenia was the “top diagnosis” allowed treatment to be more focussed and effective

1. *A local GP reviews a 36-year-old patient, Greta, whose husband is very worried about her. He reports that his wife has been feeling quite down and isolating herself at home for several weeks. She is not socialising, which is out of character for her, and has been appearing quite distracted. She has also been worrying about finances, despite the family being quite wealthy. Greta is waking up early in the morning and unable to get back to sleep.*

*The GP confidently makes the diagnosis of a melancholic depression and commences Greta on Venlafaxine. After a few weeks on an adequate dose Greta improves somewhat, but her husband reports she is not “quite right”.*

*The GP refers on to a local psychiatrist who agrees with the diagnosis of depression, but believes the Greta has a psychotic depression. It turns out that she is distracted because she has been hearing voices telling her that she is a bad person, and that she should end her life. She also believes that she has spent all the family’s money and feels guilty about this, despite it not being true. He adds a small dose of olanzapine and Greta recovers to her usual self.*

* 1. Looking at the hierarchy: In this case, Greta had a psychotic depression, where there are depressive symptoms with additional “mood congruent” psychotic symptoms (i.e. derogatory voices and delusions of guilt). Identifying that psychotic depression is the “top diagnosis” allowed treatment to be adjusted and for her to recover fully

1. A note on personality disorders:
   1. Personality is a fundamental component of a person’s state of being and, as such, it is relevant to any presentation. Being at the “base of the pyramid” reminds us to exclude all the other diagnostic possibilities before attributing a presentation to being purely personality related. Individuals with borderline personality disorder, for instance, have higher rates of mood disorders, anxiety disorders, and psychotic disorders compared to the general population. It is not good practice to assume that someone’s presentation is due to their personality, without having done a thorough assessment, and making certain that diagnoses higher on the pyramid have been excluded.
   2. *Claire is a 19-year-old young woman with a diagnosis of borderline personality disorder. She had a traumatic upbringing, and often finds it difficult to control her emotions in response to stressful situations. She often cuts herself when extremely distressed, usually when she feels rejected by those around her. Claire was having frequent admissions in the context of an abusive relationship with an ex-boyfriend, but had been doing well in a DBT program and had managed to get a part-time job.*

*More recently, she has been cutting more frequently, has reported strong suicidal thoughts, and was not attending her DBT group regularly. She presented to ED on several occasions after overdosing on Paracetamol (which was unusual for her) and, after a series of short admissions, was discharged home with a plan to continue DBT. She was thought not to be depressed as she was noted to be smiling and laughing on the ward at times.*

*Her community casemanager felt that something was not quite right and spoke to Claire’s mother, who reports that she has not been seeing friends anymore, and is not attending work because of poor concentration and tiredness from lack of sleep. Her casemanager organises for Claire to have a longer inpatient admission for treatment of depression. She is started on escitalopram and makes a dramatic recovery.*

* + 1. In this case, Claire’s presentation was attributed to her personality style and chronic sense of sadness (dysthymia), but she had a depressive disorder which was not so obvious as she did not “look depressed”. Patients with personality disorders are often “alexithymic”, meaning they have difficulty expressing their emotions. Assessing for biological symptoms of depression, as well as for anhedonia are useful strategies in this population. It is worth noting that pervasive anhedonia in its true form is never a normal finding.

***What about DSM-5?***

The DSM is seen by some as the “bible” of psychiatry (particularly in the United States). It is comprised of sets of diagnostic criteria for individual psychiatric disorders. It stands for “Diagnostic and Statistical Manual of Mental Disorders”. The most recent incarnation is DSM-5, which was released in 2013.

The title itself indicates that it is not a clinically orientated handbook, but instead proposes criteria for psychiatric disorders which facilitates research into psychiatric illnesses. This rigidity is necessary for research purposes, but in clinical practice diagnosis needs to be more flexible. Someone may potentially have a serious depressive disorder but may not meet criteria for DSM 5 major depression, which is one danger of utilising a rigid approach to diagnosis in everyday practice (i.e. the diagnostic categories are quite specific, but not necessarily very sensitive).

For these reasons, I do not focus entirely on DSM 5 criteria for psychiatric disorders in this chapter, although they may be mentioned where relevant.

The ICD (“International Classification for Diseases”) is another system that is used more in European countries. The current edition is “ICD-10”, with the eleventh edition due in 2018.

The remainder of this chapter looks at the major psychiatric disorders, and what you need to know about them. Management is covered in more detail in the last chapter.

***What do I need to know about psychotic disorders?***

As mentioned before, psychosis refers to a separation from reality. In essence, the individual is unable to tell what is real and what is not real. The characteristic symptoms and signs are hallucinations, delusions, as well as thought disorder and disorganised behaviour.

There are a variety of psychotic disorders, but the main one you will encounter in clinical practice is schizophrenia.

***Schizophrenia***

* 1. *What is schizophrenia?*
     1. Schizophrenia refers to a psychotic disorder which:
        1. Typically emerges in late adolescence
        2. Is chronic and tends to be lifelong
           1. DSM 5 states that there must be continuous signs of disturbance for at least 6 months.
  2. *What is the basic epidemiology?*
     1. Schizophrenia occurs in all cultures, and has a lifetime prevalence of 1%
     2. The mean age of onset for males is 28, and 32 for females
     3. There is a “bimodal distribution” (roughly speaking, there tends to be a peak incidence in the early twenties, followed by the late thirties)
     4. Between 5-10% of patients with schizophrenia will commit suicide
     5. People with schizophrenia die, on average, 15 years earlier than members of the general population
  3. *What are the clinical features?*
     1. Schizophrenia typically has three sets of symptom clusters:
        1. Positive symptoms (there is an excess of unusual symptoms/behaviour)
           1. Delusions
           2. Hallucinations
           3. Disorganised symptoms

Thought disorder and disorganised behaviour

* + - 1. Negative symptoms (there is a reduction in motivated behaviours)
         1. **A**social

Not wishing to engage with other people spontaneously

* + - * 1. **A**ffect which is blunted
        2. **A**logia

Meaning reduced amount of spontaneous speech

* + - * 1. **A**volition

Reduced motivation with day to day tasks

* + 1. Schizophrenia typically has a defined set of phases:
       1. Premorbid phase
          1. This leads into the prodromal period. There may have been a delay in developmental milestones, and subtle some deficits in executive functioning. “Cluster a” personality traits may be evident.
       2. Prodromal phase
          1. This occurs in the months or years leading up to the first episode. It is seen in 75% of patients, but is usually identified retrospectively. There may be subtle positive symptoms, as well as changes in academic performance, and some behavioural disturbance. Cognitive changes start to become more apparent.
       3. Acute phase
          1. The patient typically develops positive symptoms and comes to the attention of psychiatric services. Usually a psychiatric admission is needed.
       4. Residual phase
          1. Positive symptoms are not present, or are reduced in intensity. The prognosis in schizophrenia to a large extent correlates the severity of negative symptoms.
       5. Relapse phase
          1. The individual returns to the acute phase.
  1. *What is the prognosis?* 
     1. Patients tend to enter the relapse phase and have a poorer prognosis if the individual:
        1. Lacks insight into their illness and lacks the capacity to make their own informed decisions
        2. Is poorly compliant with medications
        3. Abuses alcohol or illicit drugs
        4. Continues to have relapses into the acute phase
     2. Other prognostic factors are shown in the following table:

|  |  |
| --- | --- |
| **Good prognosis** | **Poor prognosis** |
| Acute onset | Gradual onset |
| Precipitant | No precipitant |
| Mainly positive symptoms | Mainly negative symptoms |
| Mood symptoms | No mood symptoms |
| Family history of mood disorders | No family history of mood disorders |
| No family history of schizophrenia | Family history of schizophrenia |
| Late life onset | Early life onset |
| Good inter-episode functioning | Poor inter-episode functioning |
| Short active phase symptoms | Long active phase symptoms |
| Minimal residual symptoms | Prominent residual symptoms |
| Good insight and social support | Poor insight and poor social support |
| No drug and alcohol misuse | Drug and alcohol misuse |
| Compliance with treatment | Non-compliance with treatment |

* + 1. “Rule of thirds”
       1. Roughly speaking:
          1. One third of patients have a good outcome with minimal relapses.
          2. One third of patients have an intermediate outcome (with long periods of remission) and can still lead productive lives.
          3. One third of patients have a poor outcome (multiple relapses, short period of remission, negative symptoms) with poor functioning and recurrent hospitalisation.
  1. *Historical perspective*
     1. The following are some important figures who contributed to our understanding of schizophrenia:
        1. Emil Kraepelin (a prominent German psychiatrist 1856-1926)
           1. The first individual to give a detailed account of schizophrenia, and to delineate it from other disorders. He called the disorder “dementia praecox” (dementia of the young) recognising the importance of cognitive decline and social impairments (i.e. negative and cognitive symptoms).
        2. Eugene Bleuler (a prominent Swiss psychiatrist 1857-1939)
           1. He saw fragmentation of thought as the main symptom of schizophrenia (i.e. thought disorder). This is why he coined the term “schizophrenia” (meaning fragmentation of mind). He saw delusions and hallucinations as secondary features that could be present in other disorders (e.g. “manic-depression”, delirium, and dementia).
           2. He came up with the “4 A’s”

Associations (loosening of)

Autistic thinking (as with delusions)

Affect (blunted)

Ambivalence (indecisiveness)

* + - 1. Kurt Schneider (a prominent German psychiatrist 1887-1967)
         1. Schneider placed more of an emphasis on positive symptoms, and placed emphasis on the loss of autonomy the individual with schizophrenia experienced (passivity symptoms). He came up with a list of symptoms which are referred to as the “first rank symptoms of schizophrenia”. None of these are characteristic of schizophrenia, but clusters of them occurring together are suggestive:

Auditory hallucinations

Third person voices (that discuss or argue about the patient)

Running commentary (voices commend on the patient’s thoughts and behaviour)

Gedanklautwerden (thoughts are “heard” as they are formulated)

Echo de la pensee (thoughts are “heard” shortly after they are formulated)

Delusions of thought control

Thought insertion

Thought withdrawal

Thought broadcasting

Delusions of control (passivity symptoms)

Passivity of affect

Passivity of impulse

Passivity of volition

Somatic passivity

Delusional perception (similar to delusions of reference)

* 1. *Case*

*Sean is a 19-year-old young man who lives with his parents and younger sister. After finishing high school, he started a TAFE course in computers and IT. He initially performed adequately, but after three months of starting the course his family noted that he was spending most of his time in his room. He made comments to his family that he felt unsafe leaving the house because he had a vague feeling that someone might hurt him.*

*Eventually these fears progressed, and Sean believed that the government were trying to track him down and were spying on him with listening devices. He told his family that people on the streets had been looking at him strangely, and that he had seen some evidence of this conspiracy on the television. Sean had also started talking to himself. When his family found out that Sean had purchased a knife to protect himself, they presented him to the emergency department.*

*While in ED, Sean was noted to be psychotic and he divulged to the registrar on duty that he was hearing voices through the walls of his room of the neighbours talking about him, who he believed were agents of the government. A more thorough history revealed that Sean’s academic performance had declined throughout year 12, and that he had been more socially isolative. A diagnosis of schizophrenia was made and Sean was commenced on aripiprazole 10mg, which was titrated up to 20mg during a brief involuntary psychiatric admission.*

*Sean made an improvement, and was discharged with community follow-up. It was noted that he did not revert back to his premorbid level of functioning, but he was able to finish his course and start employment.*

***Other psychotic disorders***

1. *Brief psychotic disorder*
   1. There is an acute onset of positive or disorganised psychotic symptoms that last between a day and one month
   2. There is often a circumscribed precipitant e.g. after the death of a loved one or postpartum
   3. May be associated with substance misuse (which DSM 5 refers to as a substance induced psychotic disorder)
   4. Individuals with personality disorders are more likely to experience these episodes
   5. Many people may not have a further episode
      1. Good prognostic factors:
         1. Rapid onset and resolution
         2. Severe stressor
         3. Mood symptoms
         4. Little affective blunting
         5. Perplexity
2. *Schizophreniform disorder*
   1. Identical to schizophrenia except that continuous signs of disturbance (including positive symptoms) last between one to six months
   2. Lifetime prevalence of 0.2%
   3. Prognosis:
      1. One-third fully recover (and have a diagnosis of schizophreniform disorder)
      2. Two-thirds are reclassified as having schizophrenia due to progression of their illness
3. *Delusional disorder*
   1. These are individuals who have “non-bizarre delusions” which last for at least one-month (DSM 5)
      1. Delusions associated with schizophrenia, are often “bizarre” in nature, meaning that they are highly unlikely to have occurred e.g. that a satellite from space is relaying a person’s thoughts to the FBI. In contrast, non-bizarre delusions are plausible
   2. The individual typically has a single delusional theme, which can be quite systematised
      1. Auditory hallucinations are usually absent, but there may be olfactory or tactile hallucinations relating to the delusional system
   3. Subtypes are based upon the type of delusional belief:
      1. Persecutory subtype:
         1. Most common form
         2. The individual believes that they are being treated in a harmful way e.g. being cheated, harassed, conspired against, poisoned or monitored
      2. Erotomanic subtype
         1. The individual holds the delusional belief that another person is in love with them
         2. This is referred to as “De Clerambault’s syndrome” if the individual believes that someone of great importance is in love with them e.g. a celebrity
      3. Grandiose subtype
         1. The individual believes that they have a special talent, has made an important discovery or has a special connection with a prominent person (not of a romantic nature, or this would be an erotomanic delusion)
      4. Jealous subtype
         1. The individual believes that their sexual partner has been unfaithful towards them
         2. This is otherwise known as delusional jealousy or “Othello syndrome” (after the Shakespearean plan)
      5. Somatic
         1. The individual believes that they have a physical defect or disease, despite evidence to the contrary
         2. Some specific subtypes:
            1. Olfactory reference syndrome

The individual believes that they emit a strange odour which is offensive towards other people, and is associated with olfactory hallucinations

* + - * 1. Delusional parasitosis

The individual believes that their body has been infested by insects or parasites, and may be associated with tactile hallucinations that insects are crawling over the person’s skin (“formication”)

Otherwise known as Ekbom’s syndrome

* 1. Epidemiology:
     1. Rare, prevalence of 0.03%
     2. Usually start in between the age of 35-50
  2. Prognosis:
     1. The illness tends to be chronic, but may spontaneously improve after a number of years
     2. It is likely that a number of individuals with delusional disorder do not present for psychiatric treatment as their symptoms are subtle and do not necessarily impede functioning in an obvious way (this normative functioning is part of the DSM 5 criteria for delusional disorder)
  3. Tips in clinical practice:
     1. It is usually taught that patients with delusional disorders do not respond as well to antipsychotic medications. That said, given that these disorders may be quite dangerous, it is worth treating them as you would an individual with schizophrenia. It is generally not useful to assume that they will be a non-responder

1. *Schizoaffective disorder*
   1. Discussed under bipolar disorder

***What do I need to know about the affective disorders?***

It is a normal part of human experience to experience a number of emotions. When a relationship ends, for instance, it is quite normal for someone to feel sad or down. When enjoying someone’s company it is also normal to feel happy and content.

These “affective states” (emotional states) are a normal part of being human. The affective (or mood) disorders, by contrast, occur when an emotional state is excessive, distresses the individual, and impedes their ability to be productive and live day to day.

The mood disorders are primarily based upon the states of being depressed or manic.

They can broadly be classified into the following groups:

1. Unipolar depression
   1. Meaning the individual only experiences episodes of depression (“unipolar” meaning there are no manic episodes associated)
2. Bipolar disorder
   1. Meaning the individual experiences episodes of depression and mania (or “hypomania”)
   2. Unipolar mania (i.e. recurrent mania without episodes of depression) is quite rare
3. Adjustment disorder
   1. These can be seen as an exaggerated response to a stressful life situation e.g. after a person loses their job. The individual can become low in mood or quite anxious, but do not meet criteria for an anxiety or depressive disorder. These disorders typically improve with support and time
4. Dysthymia
   1. A state of chronic, low level sadness, that does not meet criteria for a depressive episode. More common in individuals with personality disorders and developmental trauma

*What is mania?*

In order to understand mood disorders, it is important to have an understanding of what a “manic episode” actually. Mania refers to an elevated mood state, which is persistent, and causes impairment in daily functioning. In order to qualify as a manic episode, the individual must have obvious impairment of functioning or have psychotic features.

Manic episodes can have the following features (which can be remembered by the mnemonic “GST PAID”):

1. **G**randiosity
   1. For instance, an individual believing that they are the son of god, or that they own a big company like Microsoft
2. **S**leep impairment
   1. Individuals who are manic tend to sleep very little, and may go for days on end without sleep
3. **T**alkative
   1. Manic patients tend to talk a lot, and are often quite pressured in their speech, reflecting an excessive amount of thoughts and ideas in their mind
4. **P**leasurable activities
   1. Manic patients have a tendency to engage in a number of pleasurable activities which are out of character, and can have painful consequences. These may include increased sexual activity, being unfaithful to partners, or spending excessive amounts of money and getting into debt
5. **A**ctivity
   1. It is common for manic patients to have an increase in goal directed activity. For instance, may manic patients have a tendency to do creative writing whilst unwell. There is a very well-known link between mania and creativity, with bipolar disorder being much more common amongst artists. These creative projects may initially be quite original, and even brilliant in some cases, but tend to become more disorganised as the mania progresses
6. **I**deas
   1. Individuals who are manic tend to develop flight of ideas, the characteristic form of thought disorder in mania. Patients appeared scattered, and jump from topic to topic. Words and phrases may be linked according to the way they sound (e.g. “too cool for school”), which is known as a “clang association”
7. **D**istractibility
   1. Manic patients, particularly as the episode progresses, become disorganised and find it difficult to focus due to the increased amount of mental activity

*What is hypomania?*

Hypomania refers to a less severe form of mania, in which the patient is not psychotic and does not have marked impairments in day to day functioning. These individuals may appear quite charismatic, charming, and productive at the beginning of the episode. Unfortunately, the episode can still have destructive consequences, such as sexual promiscuity and excessive spending. It is theoretically possible for hypomania to not be a “bad thing”, but it is difficult to titrate hypomania to a degree where it will not be harmful in the long-run.

*What are mood congruent psychotic symptoms?*

Patients with episodes of depression and mania can develop psychotic symptoms which are “mood-congruent”. In a very basic sense, depressed patients develop “sad psychotic symptoms”, while manic patients develop “happy psychotic symptoms”.

1. Mood congruent psychotic symptoms seen in “psychotic depression”:
   1. Derogatory auditory hallucination which may have command elements instructing the individual to kill themselves
   2. Nihilistic delusions
   3. Delusions of guilt
   4. Delusions of poverty
2. Mood congruent psychotic symptoms seen in mania
   1. Grandiose delusions
   2. Religious delusions (such as a patient who believes they are the son of god)
   3. Auditory hallucinations which may reinforce the patient’s grandiosity

*What is depression?*

Depression is, perhaps, one of the most misunderstood conditions in psychiatry. Almost everyone in the community will have heard of depression, but may consider it to be “normal sadness”, or a normal response to difficult times. You will hear people say “wouldn’t you be depressed if you were him?”, which is akin to saying “wouldn’t you be having an asthma attack if you forgot your puffer and went for a run in the cold?”. The analogy is a basic one, but emphasises that depression should not be trivialised. Depression is treatable across the lifecycle, even in the final weeks to days of life in palliative care settings.

When providing psychoeducation about depression, it is useful to explain to patients that “being sad” is a normal part of human experience, especially when something bad has happened. It is useful to distinguish this from depression which is “more than usual sadness”, and explain that it has a number of clinical features. When you discuss these clinical features, the patient will likely identify with them, and see that they do have a recognisable illness. This will be a relief to many patients.

*Note: The DSM 5 refers to depression as a “major depressive episode”. I will instead refer to the term “depression”, and will recognise that there are different “subtypes” of depression (as the DSM also does).*

1. Clinical features of depression:
   1. Core symptoms
      1. Low mood
      2. Fatigue
      3. Loss of interest and enjoyment in usual activities
         1. This is referred to as “anhedonia” when the individual is unable to experience any sort of joy (a sign of a serious depressive illness)
   2. Psychological symptoms
      1. Worthlessness
         1. The individual feels like there is nothing good about themselves
      2. Guilt
         1. The individual feels guilt about issues in the present or past, which is excessive, may have an obsessive character, and may be delusional in intensity
      3. Hopelessness
         1. The individual sees no hope for the future
   3. Biological symptoms
      1. Sleep disturbance
         1. This may be initial, middle, or late insomnia (or even hypersomnia)
      2. Change of appetite
         1. Typically, reduced appetite with weight loss
      3. Poor concentration
      4. Reduced libido
2. Subtypes of depression
   1. Melancholic depression
      1. This is a severe form of depression which has characteristic features. It tends to be resistant to psychological treatments, and typically requires antidepressant medications or ECT
      2. In a very basic sense, melancholic depression is usually identified before even speaking to the patient, as they “look depressed”
      3. Specific clinical features
         1. The most characteristic features
            1. Pervasive low mood
            2. Psychomotor changes

This is, perhaps, the most discriminating sign in melancholic depression

There is typically psychomotor retardation in which the individual’s movements are sluggish, and the patient may report feeling heavy (“leaden paralysis”)

There may also be psychomotor agitation

* + - * 1. Profound fatigue with difficulty waking up in the morning
        2. Diurnal mood variation

The patient’s mood is worse in the morning, and improves as the day goes on

* + - * 1. Anhedonia
      1. Other “melancholic features”
         1. Low appetite with weight loss
         2. Late insomnia

The individual wakes up early in the morning (e.g. 3am), and finds it very difficult to fall asleep again

* 1. Psychotic depression
     1. The most severe form of depression, in which there are mood congruent psychotic symptoms (discussed above)
  2. Atypical depression
     1. The individual tends to sleep more (hypersomnia) and eat more (hyperphagia)
     2. There may also be “leaden paralysis”
     3. Bipolar depression often has these atypical features
  3. Bipolar depression
     1. Discussed below
  4. Agitated depression
     1. DSM 5 refers to this as a “major depressive episode with anxious distress”
     2. The individual appears very anxious, has panic symptoms (and may have fully developed panic attacks), is psychomotor agitated, and tends to “project” their anxiety onto others (meaning that they may unconsciously make you feel anxious as you take a history from them)
  5. Catatonic depression
     1. This is a severe form of depression with motor features of catatonia, often requiring ECT

1. Epidemiology of unipolar depression
   1. Lifetime prevalence of 20%
   2. Lifetime risk of suicide 7.9%
   3. Harris&Brown vulnerability factors for depression:
      1. Loss of mother before age 14
      2. 3 or more children under 11
      3. Lack of confidant
      4. Unemployed
2. Prognosis
   1. 60% of patients who have a major depressive episode will have further episodes (recurrent unipolar depression, or “recurrent depressive disorder” in DSM 5)
   2. Individuals with recurrent unipolar depression have a suicide rate twenty times that of the population, and the suicide rate may be as high as 13% for severe episodes
3. Tips in clinical practice
   1. Some patients may have quite serious depression, but may not appear overtly depressed (i.e. they are “non-melancholically depressed”). For instance, they may be able to smile, even if they don’t feel happy, and may have no psychomotor changes. This means that you should always screen for depression, even in people who do not “look depressed”
   2. Antidepressants are effective treatments for unipolar depression. That said, antidepressants can cause people to have more energy and motivation before their mood improves. If these patients have suicidal thoughts, they may develop the motivation to carry out their plans early on in treatment. This is one rationale for treating depressed patients who are suicidal in hospital, where there treatment can be monitored in a more supervised environment
   3. It is important that patients receive a holistic treatment plan when they are treated for depression, and not just medical treatment. This means offering providing good quality psychoeducation, family involvement, psychological therapy, and appropriate lifestyle advice. With all of these measures one would hope to prevent a relapse of the patient’s depressive illness, or at least prolong their period of euthymia for as long as possible. One reason for this is that repeated episodes of depression lower one’s threshold for developing further episodes, leading to a vicious cycle. This is a phenomenon known as “kindling”, which is seen in epilepsy as well as other psychiatric disorders (e.g. mania, psychosis). Managing stress is also an important skill, as once a certain amount of stress is reached an episode of illness may be triggered depending upon the person’s vulnerability to illness (which may be genetically or developmentally determined). This is called the “stress vulnerability model”, which also applies to other psychiatric illnesses.
4. Case

*Chen is a 26-year-old woman who lives with her long-term boyfriend Tony. Chen works as a hairdresser in a full-time capacity, and is usually an active person who enjoys socialising and doing regular exercise.*

*Due to changes at work her employer has had to make her redundant. Chen did not take this well, as she enjoyed her work and dealing with customers on a daily basis. Chen initially stayed positive, but found it difficult to find work. The resulting financial difficulty caused some conflict between her and Tony.*

*After one month of unemployment, Chen found it difficult to stay motivated in looking for work. She became extremely tired, and found it difficult to get up in the mornings. Her boyfriend Tony became worried because she was no longer exercising or wanting to see her friends. She complained of feeling “heavy”, but was somewhat better in the evenings. Tony noted that she had become more irritable because she hadn’t been sleeping well at night.*

*After noticing that Chen was progressively losing weight, Tony convinced her to go to her local GP. Her GP, who was experienced in mental health, made the diagnosis of melancholic depression. Because Chen was not psychotic, nor were any serious harms evident, he commenced her on a dose of escitalopram 10mg in the community. He also developed a schedule of regular activities for Chen to follow, and provided education to her and Tony about depression. Chen eventually made a full recovery and was able to successfully cease her antidepressant after one year.*

*What is bipolar disorder?*

1. Bipolar disorder is a condition in which there are recurrent episodes of depression (“bipolar depression”) as well as mania of hypomania
2. Epidemiology of bipolar disorder
   1. Mean age of onset 21
   2. Prevalence estimates vary:
      1. The lifetime prevalence is between 0.3-1.5% for bipolar 1
      2. Prevalence estimates are as high as 4% when bipolar 2 and “sub-threshold symptoms” are included
      3. Challenges in determining the prevalence of bipolar disorder may reflect the fact that this psychiatric disorder may be diagnosed inappropriately in patients whose mood fluctuations are better attributed to another illness (e.g. emotional dysregulation seen in borderline personality disorder)
   3. There is significant co-morbidity between bipolar disorder and substance abuse problems
3. Subtypes
   1. Bipolar 1 disorder
      1. There are recurrent episodes of mania and bipolar depression
   2. Bipolar 2 disorder
      1. There are recurrent episodes of hypomania and bipolar depression
4. Bipolar depression
   1. Bipolar depression has some notable differences compared with unipolar depression. The mnemonic “WHIPLASHED” can help you to identify features of bipolar depression2
      1. **W**orse or “wired” with antidepressants
         1. Antidepressants may worsen bipolar depression if used alone, or cause a “switch” into a manic state
      2. **H**ypomania or mania in the past
      3. **I**rritable or mixed features
      4. **P**sychomotor retardation
      5. **L**oaded family history of bipolar disorder
      6. **A**brupt onset and/or termination of episode (within 3 months)
      7. **S**easonal (depressed in winter, normal/hypomanic mood in spring) or postpartum onset
      8. **H**yperphagia and hypersomnia (atypical features)
      9. **E**arly onset
      10. **D**elusions, hallucinations (psychotic symptoms)
5. What is a mixed affective state?
   1. Mixed affective states (otherwise known as “mixed episodes”) can occur in bipolar disorder. Individuals with a mixed state will have features of both mania and depression simultaneously, which may seem counter-intuitive. Identifying a mixed episode is important, because mixed episodes may require specific treatments (e.g. withholding antidepressants). Consider the following case:

*Connie is a 19-year-old girl with a family history of bipolar 1 disorder, who presents to ED with her parents due to concerns over her mental health. On arrival to ED she appears dysphoric, irritable, and finds it difficult to stay still. She is constantly talking about how her parents are overly controlling and threatens to burn down the family home. She is admitted to an acute ward. On the ward the nurses note that she is speaking quickly, jumps from topic to topic, and is writing a book about her life story on the ward. She voices suicidal thoughts because of her maltreatment, and can see no point in living. A diagnosis of bipolar 1 disorder is made, with the current episode being a mixed affective state*

1. Prognosis
   1. Individuals with bipolar disorder tend to have normal inter-episode functioning, which differentiates it from schizophrenia which has a tendency to deteriorate with time (although this is not inevitable)
   2. Up to 51% of individuals with bipolar 1 or 2 will attempt to commit suicide at one point in their life3
   3. Bipolar 2 should not be seen as “bipolar light”, as up to 24% of patients with this disorder will attempt suicide (versus 17% for bipolar 1 and 12% for recurrent unipolar depression)4
2. Tips in clinical practice
   1. When encountering a patient who has a diagnosis of bipolar disorder, confirm that the patient has had mania in the past (e.g. by asking the patient, family, or linking at past notes) to confirm the diagnosis. This is because the diagnosis is sometimes made inappropriately in patients who have sudden shifts in mood for other reasons. Most commonly this is seen in patients with cluster b personality disorders who have may sudden, unstained shifts in mood in response to stressful situations. These patients will typically have a limited (or no) response to mood stabilisers, and the label of “bipolar disorder” shifts the focus away from psychological interventions, which are first line in personality disorders. In some cases, it may be appropriate, and quite helpful, to remove a label of bipolar disorder from a patient after careful investigation into their past presentations and after discussing the patient’s case with your consultant
3. Case

*Nish is a twenty-three-year-old man who is studying biology in university and lives with his best friend Tim.*

*Nish’s sixteen-year-old sister had recently been admitted to hospital with a severe asthma attack, and had spent time in the ICU on a ventilator before being discharged home. During this same period, Nish was studying for end of term exams. He is a high functioning student and continued to attend class and study in his spare-time. In addition to his studies, he began reading about asthma so that he could better understand his sister’s condition.*

*Tim became worried when he noticed that Nish had not been sleeping. As time progressed Tim became more worried when Nish started to behave uncharacteristically. Nish had begun to speak very quickly and had been recording all of his thoughts in a journal, much of which related to asthma and was difficult to follow. Nish had become convinced that he had discovered a cure for asthma, and had been putting up posters over the university campus informing other people of his discovery.*

*Eventually one of Nish’s university lecturers approached him out of concern and suggested that he see a doctor. Nish reacted by becoming extremely irritable, and was upset that his teacher was not taking his discovery seriously. Whilst in this state, Nish had threatened to kill his lecturer as he believed that he was trying to suppress information about his discovery.*

*Nish was subsequently admitted as an involuntary patient to an acute mental health unit. Nish was diagnosed with bipolar 1 disorder, and commenced on lithium and aripiprazole. Collateral history from Nish’s parents indicated that one of his paternal uncles has a history of bipolar disorder. Once Nish’s manic episode settled, he developed mild depressive symptoms which resolved with supportive measures. His psychiatrist was reluctant to prescribe an antidepressant during this time as he felt that this might cause worsening mood instability*

***What do I need to know about the anxiety disorders?***

1. What is anxiety?
   1. Anxiety refers to fear in response to a particular stimulus or threat
   2. Anxiety is an adaptive response
      1. In an evolutionary sense, without fear we would be more likely to engage in dangerous activities without fearing the consequences (e.g. swimming in a shark infested lake)
         1. To use another example:
            1. If a student lacks anxiety about an upcoming exam, they are unlikely to study for it and to fail
            2. If the student is extremely anxious, he or she may not be able to focus on their study, or be too anxious to study at all
            3. With an optimal amount of anxiety, the student will have the drive to study, can focus, and will be more likely to pass

The relationship between anxiety and performance can be reflected in a diagram called the Yerkes-Dodson curve

1. What is an anxiety disorder?
   1. An anxiety disorder occurs when there is excessive anxiety (“fear”) targeted towards a specific situation
      1. The natural tendency for very anxious people is to avoid what they fear
      2. This may be a “safe way” to manage the anxiety, but it can cause significant dysfunction in day to day life

Thinking back to the previous example, an individual may find it very stressful to study for an exam in a subject which they are not good at. Avoiding study may prevent this anxiety in the short term, but in the end the person is likely to fail.

*A key part of psychoeducation in all anxiety disorders is to educate the patient about the unhelpful role of avoidance, and to provide skills for them to be able to confront anxiety provoking situations (which is called exposure therapy)*

1. What is a panic attack?
   1. A panic attack occurs when there is a sudden surge of anxiety, in which the “fight or flight response” goes into overdrive
      1. Typically they last for a few minutes up to 20 minutes
         1. Psychological features of panic
            1. Extreme fear
            2. Feelings of “going crazy”
            3. Fear of dying/impending doom
            4. Mental fatigue that may last for hours after a panic attack
         2. Physical features
            1. Hyperventilation
            2. Palpitations
            3. Chest pain
            4. Nausea, abdominal discomfort, the feeling of having a “lump in the throat” (globus hystericus)
            5. Paraesthesia (perioral, in the extremities due to hyperventilation)
            6. Tremor
         3. Panic attacks are a core feature of panic disorder, but may occur in any other anxiety disorder when fear towards a particular threat peaks
2. Specific anxiety disorders
   1. *Specific phobias*
      1. The individual fears **specific objects, activities or situations**
      2. Common fears include:
         1. Spiders (“arachnophobia”)
         2. Heights
         3. Blood tests
         4. Enclosed spaces
      3. These individuals may be quite debilitated by their fears, and even mild forms of exposure can cause distress (e.g. seeing a spider on TV)
   2. *Social anxiety disorder (“social phobia”)* 
      1. The individual fears **negative evaluation** from individuals with whom they do not know well, or in new social situations
         1. The “performance subtype” is when anxiety occurs in the context of public speaking only
      2. This leads to **avoidance of social situations** leading to social isolation, and in many cases the use of alcohol or other drugs to manage anxiety and make social interactions easier
   3. *Obsessive compulsive disorder* 
      1. DSM 5 no longer considers this an “anxiety disorder”, and it is now grouped into “obsessive-compulsive and related disorders”. That said anxiety is a feature of this condition
      2. The individual fears uncertainty, and **that their fearful thoughts will become reality**
         1. The individual has recurrent, intrusive thoughts, or images, which they cannot control, and cause marked anxiety (**obsessions**)
         2. Obsessions are almost always linked to **compulsions**, which are repetitive behaviours, or thoughts, which are not pleasurable, but which neutralises the anxiety caused by an obsession
            1. Compulsions neutralise the fear of an obsession for only a short time, so need to be repeated many times, thereby creating a perpetuating cycle
         3. Obsessions and associated compulsions tend to consume the individuals daily routine and take up hours of their day
      3. Common themes in OCD
         1. Contamination
            1. The individual has recurrent, intrusive thoughts, that they, or their environment, are contaminated or dirty
            2. The compulsive behaviour usually involves excessive washing (classically hand-washing)

The individual may avoid going into a car with other people due to fear of them being contaminated

* + - * 1. Doubt

The individual has recurrent, intrusive thoughts, that they have forgotten to do something important

The compulsive behaviour usually involves excessive checking

E.g. checking that a lock has been secure, or that an email has been correctly proof-read

The individual may avoid leaving the home due to fear of leaving the door unlocked

* + - * 1. Harm

The individual has recurrent, distressing thoughts, that they may harm another individual

These may be sexual in nature e.g. having recurrent thoughts of sexually interfering with a younger sibling

The compulsive behaviour may be mental in nature (e.g. repeating “I wouldn’t do it” over and over) or involve excessive “reassurance seeking” (e.g. asking other family members whether they think the patient is a risk to the family member)

The individual may avoid young family members, or any situations where children are around

* + - * 1. Symmetry

The individual has recurrent thoughts that items need to be arranged perfectly, or in a particular order

The compulsion would involve arranging these items in an exact way

The individual may avoid situations or environments which are “messy” or “disordered”, as they would cause too much anxiety

* + 1. Tip in clinical practice
       1. Obsessions in OCD are said to be “egodystonic”, meaning that they are unwanted and seen as unreasonable. A patient with OCD may feel the need to wash their hands for fear of getting germs which may kill them, but these are usually recognised as unreasonable and untrue. This is in contrast to a somatic delusion where the patient is convinced that they are infested with a type of bacteria which is going to kill them. Patients with OCD can have obsessions that develop a psychotic quality
       2. It is generally accepted that patients who have OCD with thoughts of harm do not act out their fears. For instance, a patient with new onset OCD who has fears of being a paedophile is unlikely to start hurting children based upon his OCD alone
       3. Patients with obsessive compulsive personality disorder are often preoccupied with order and cleanliness, but these are said to be “egosyntonic”, meaning that they do not distress the person and are a normal part of their character.
       4. Clinical case

*Emily is seventeen-year-old girl who lives with her parents and younger brother.*

*Emily is a high achieving student who is typically highly organised and motivated with her studies.*

*Upon starting year 12, Emily started to develop unwanted thoughts that she found very difficult to control. She began to develop irrational doubts that she had not completed tasks adequately.*

*For instance, she had developed a fear that her study table was disorganised and messy, despite this not being the case. She spent hours after school arranging and rearranging her table, and constantly doubted whether she had done this well enough.*

*She had also developed doubts about her schoolwork, and spent much of her spare time rereading her school notes multiple times ensuring that there were no mistakes, despite being sure that she had done an adequate job.*

*Whilst at school Emily found it difficult to function, as she was unable to complete tasks. She was eventually referred to a school counsellor who organised for a referral to a psychiatrist.*

*The psychiatrist diagnosed her with obsessive-compulsive disorder, with predominant fears of doubt and compulsions related to excessive checking. The psychiatrist provided psychoeducation to Emily and her parents about the disorder, and discussed the unhelpful role of compulsions and excessive checking. He began work with Emily about challenging her intrusive thoughts, and developed a hierarchy of exposure with Emily which allowed her to tolerate the uncertainty of her anxious thoughts. Emily did well with this CBT approach, and was managed well without the use of SSRIs.*

* 1. *Panic disorder*
     1. The individual **fears having panic attacks**
        1. The disorder usually starts with recurrent and unexpected panic attacks
        2. With repeated panic attacks, they then become fearful of having further panic attacks
        3. The individual may then become fearful of being in situations where it is hard to get help in case of a panic attack or where they cannot escape
           1. As a result, they may **avoid situations which would be uncomfortable or difficult to escape from in case of a panic attack**

This is called agoraphobia

* + 1. Tips in clinical practice
       1. Patients with panic disorder will often have recurrent presentations to emergency departments with fears that their panic attacks are manifestations of a potentially lethal medical disorder (e.g. a heart attack). They are often resistive to the idea of seeing someone from the mental health team
       2. That said, it is important to exclude medical conditions which may manifest with panic symptoms (e.g. thyrotoxicosis, cardiac arrhythmias, or phaeochromocytomas)
    2. Clinical case

*Matthew is a twenty-six-year-old man who works full time as a mechanic and lives alone.*

*Matthew began experiencing episodes of extreme anxiety lasting up to five minutes. During these episodes, he would hyperventilate, develop paraesthesia, abdominal discomfort, and palpitations. As he had never experienced these symptoms before he presented to his local emergency department for fear that he was having a heart related problem.*

*Matthew was investigated fully, including thyroid function tests, a baseline ECG, and a Holter monitor over a twenty-four-hour period. He was reassured by his cardiologist that he was experiencing panic attacks. Unfortunately, no psychiatric follow-up had been organised.*

*These attacks continued to the point where Matthew was having three attacks per day. He became very anxious about having further attacks, and worried that he would be embarrassed if they happened at work. He also became very worried about travelling on public transport or driving, for fear that he would not be able to escape confined spaces if he had further attacks.*

*Matthew found that his attacks were not as fear inducing and less frequent when he was at home, and gradually he became housebound.*

*After a period of two weeks of not leaving the home, his brother organised for the mental health team to see Matthew at home. They diagnosed him with panic disorder with agoraphobia and started him on escitalopram 5mg daily. His anxiety symptoms improved to the point where he could utilise relaxation measures and work through a graded exposure process with a therapist. He was eventually able to return to work.*

* 1. *Generalised anxiety disorder*
     1. The individual is chronically anxious and has **worry that spirals out of control**
     2. The worry is typically about everyday activities e.g. finances, health, work
        1. The worry is usually so excessive that **it may lead to avoidance, as opposed to problem solving, of the worries that the patient is experiencing**
     3. Clinical case

*Caroline is a thirty-three-year-old who lives with her husband and son David.*

*Caroline had always been an anxious person, who tended to be a “worrier”, but this had never caused her significant dysfunction.*

*She had noticed that her anxiety levels had peaked after David started kindergarten, and that she was having difficulty falling asleep due to her anxious thoughts.*

*Caroline had begun to worry that David might be bullied at school or have an accident. These thoughts tended to preoccupy her during the day, and she would call the school a few times per day to make sure that he was ok. She was reluctant for David to go to school on some days, but her husband ensured that he attended.*

*Her husband had recently told Caroline that he may be made redundant. Caroline had become very worried, and tried to look for a job for herself. She identified a few jobs that she would be able to do, but was not able to choose one. She had liked the idea of learning to be a hairdresser, but was worried that if she got a job she would spend less time with David, and was not sure whether she would be able to make the necessary arrangements to have an interview, so gave up on this idea.*

*David became concerned when he found Caroline crying at home. She had wanted to take David for a swim, but was not sure which swimmers to choose for him, and was worried that he may have an accident.*

*Both Caroline and David agreed that her worrying tendencies had gone out of control, and they organised for Caroline to see a psychiatrist. The psychiatrist made a diagnosis of generalised anxiety disorder, and provided psychoeducation about the disorder, and provided sleep hygiene advice. A regimen of CBT using cognitive challenging, relaxation skills, structuring of daily activities, and the development of problem solving skills was successful and Caroline did not require psychotropic medications.*

***What do I need to know about personality disorders?***

1. Personality:
   1. Refers to an individual’s pervasive way of thinking, feeling, and acting
2. Personality disorder:
   1. Occurs when an individual’s personality style:
      1. Causes them subjective distress
         1. For instance, chronic sadness, emptiness, or suicidal thoughts
      2. Interferes with daily functioning
         1. These patients may find it difficult to stay employed
      3. Causes them social dysfunction
         1. Usually in the form of relationship difficulties
3. Classification
   1. DSM 5 “did away” identifying personality disorders by “clusters”, but this is a clinically useful way of classifying them (and is commonly used):
4. *Cluster a personality disorders (odd, bizarre, isolative personality types)*
   1. Schizoid personality disorder
      1. The individual is distant, prefers being alone, and does not feel the need to interact with other people
      2. Individuals with autism spectrum disorders may seem schizoid but, in reality, they desire social interaction, but are unsure how to connect with others (one of the key criteria for autism)
   2. Paranoid personality disorder
      1. These individuals tend to be isolative, find it difficult to trust others, and are constantly suspicious of other people’s motives
      2. They may appear to be “hard to please”
      3. These individuals may have paranoid overvalued ideas, but are not psychotic
   3. Schizotypal personality disorder
      1. These individuals have symptoms similar to those seen in schizophrenia, but these do not reach the criteria for being psychotic
      2. They often have eccentric appearances, ways of dressings, and have odd ideas, with magical thinking, and ideas of reference
      3. They may have illusions, but not hallucinations
5. *Cluster b (dramatic, erratic, emotionally dysregulated)*
   1. Borderline personality disorder
      1. Core features:
         1. Poor sense of self-identity
         2. Feelings of emptiness
         3. Fear of abandonment (especially relationship breakups)
      2. Emotional features
         1. Affective instability
            1. Inability to control strong emotions when upset or angry (a feature seen in all cluster b disorders)
         2. Chronic sadness (dysthymia)
         3. Recurrent suicidal ideation and self-harm
      3. Cognitive features
         1. Impulsivity
            1. “Doing without thinking” e.g. self-harming, excessive spend, substance misuse
         2. Concrete “black or white thinking”
      4. Psychotic features
         1. Prone to brief psychotic episodes in response to stress
         2. The term “borderline” was a psychoanalytic term which emphasised that these patients were on the border of the neuroses and psychoses
   2. Histrionic personality disorder
      1. These individuals have a pathological need to be the centre of attention, tend to only relate to others on a superficial level, and believe that their relationships with others are closer than they actually are
   3. Narcissistic personality disorder
      1. The narcissistic patient is:
         1. Grandiose
            1. In that they have an exaggerated view of their talents and accomplishments when compared to others
         2. Entitled
            1. Meaning they expect special treatment from others
         3. Secretly insecure and jealous of others
   4. Antisocial personality disorder
      1. These are patients who usually have a longstanding difficulty since childhood in following rules, which manifests as criminal behaviour, aggression, deceit, and lack of empathy or concern for others
6. *Cluster c personality disorders (anxious, fearful)*
   1. Avoidant personality disorder
      1. These patients feel inherently inadequate compared to other people, and, as a result, fear being rejected by others. They tend to only socialise with known individuals to minimise the risk of being rejected. Unlike social anxiety disorder, this illness manifests from a young age and patients with avoidant personality tend to have low self-worth, which is not a key feature of social anxiety disorder
   2. Dependent personality disorder
      1. These patients have difficulties being on their own or making decisions for themselves. They can become quite reliant on community staff and inpatient wards, as well as be quite reluctant to be discharged
   3. Obsessive compulsive personality disorder
      1. These patients tend to be rigid, preoccupied with rules and organisation, as well as being perfectionists. They also tend to have quite distant relationships with others
      2. This is distinct from OCD, as their obsessional qualities are egosyntonic and not typically distressing to the patient
7. Tips in clinical practice
   1. Patient’s with personality disorders often elicit (or “project”) strong emotions onto others, including the health practitioners looking after them. These emotions can include anger, fear of rejection, or intense sadness. It is worth keeping in mind that the patient’s emotional reactions are often a complex manifestation of some aspect of the patient’s difficult upbringing.

This upbringing may have included parents who were dismissive, unpredictable, or abusive. As health professionals, it is up to us not to harshly react (or “identify”) with the strong feelings the patient is producing, as you will often taken on the quality of attachment figures in their life who have been unavailable, and the cycle of trauma for the patient will continue.

This cycle of “projective identification” is commonplace on acute wards, and it is vital to realise that by being warm, empathic, and regulating your own emotions that you are demonstrating to the patient a more adaptive way of dealing with stress.

* 1. So, empathy, warmth, and composure are key tools for helping patients with personality disorders. Maintaining appropriate boundaries is also important, as certain patients with personality disorders will unconsciously seek to create an attachment with their doctor that transcends an appropriate professional boundary
  2. You will hear people referring to such patients as “PD’s”. This is a derogatory term which is best avoided. There is a difference between saying “this patient has a personality disorder” and “this patient is a personality disorder”

***What do I need to know about the organic psychiatric disorders?***

The term “organic psychiatric disorder” is something of an unfortunate term, as it tends to suggest that other mental illnesses described previously do not have an organic basis (which, of course, is untrue). The term is usually applied to cognitive disorders, which affect higher order brain functions, and generally refers to the disorders “delirium” and “dementia”.

*What is cognition?*

Cognition refers to brain processes which allow us to:

1. Learn and acquire new information (which is a function of memory)
2. Understand information and use that information to problem solve
3. Understand the world using the special senses, and to coordinate complex movements
4. Utilise language based skills

The organic psychiatric disorders are, in part, thought to be “organic” as these functions of the brain can be localised to specific brain regions and have specific pathological characteristics (particularly the dementias).

Cognitive functions can be localised to different brain regions or lobes (although it should be noted that this is a simplification, and that there are functions that can span several brain areas):

1. Frontal lobes
   1. Motivation
   2. Impulse control
   3. Personality
   4. Control of voluntary movement
   5. Complex reasoning and problem solving (or “executive functioning”)
   6. Expressive language (Broca’s area)
2. Parietal lobes
   1. Visuospatial functioning
      1. This refers to skills in processing visual information as well as the ability to recognise the relative position of objects to each other
   2. Integration of sensory information
      1. Deficits of which are called agnosias, in which there is difficulty with perception despite intact sensory pathways
         1. Some subtypes:
            1. Anosognosia

The individual does not recognise and denies bodily deficits (e.g. a patient denying that they are paralysed on one side of their body)

* + - * 1. Asomatognosia

The inability to recognise body parts (e.g. the person cannot point out their arms)

* + - * 1. Astereoagnosis

Difficulty identifying objects using touch alone (e.g. difficulty identifying a watch with one’s eyes closed)

* + - * 1. Dysgraphesthesia

The patient cannot identify numbers or letters traced on their hands with their eyes closed

* + - * 1. Finger agnosia

Difficulty identifying different fingers in one’s hand (e.g. patient cannot identify their index finger on one hand when asked)

* + - * 1. Prosopagnosia

Difficulty in recognising faces (as can occur in dementias such as Alzheimer’s Disease)

* + - * 1. Simultagnosia

Difficulty identifying an image as a whole, with an intact ability to differentiate parts of an image

* + - * 1. Visual agnosia

Difficulty recognising objects e.g. identifying a pen or watch (as in the MMSE)

* + - * 1. Visuospatial agnosia

Difficulty identifying the relative position of objects (which can lead to patient’s becoming lost i.e. topographical disorientation)

* 1. Higher cortical coordination of movement
     1. Deficits of which are called apraxias, where there is impaired motor functioning despite intact motor pathways, more common in dominant lesions
        1. Some subtypes:
           1. Constructional apraxia

The individual has difficulty copying patterns (e.g. overlapping pentagons on the MMSE)

* + - * 1. Dressing apraxia

The individual finds it difficult to dress themselves e.g. to put on a cardigan on their own

* + - * 1. Gait apraxia

There is difficulty in coordinating walking, despite having intact motor pathways (this reflects a difficulty in higher brain functions which coordinate motor pathways and may occur in advanced dementia)

* + - * 1. Ideational apraxia

The individual finds it difficult to carrying out motor tasks involving numerous steps (e.g. difficulty with the three-step command in the MMSE)

* + - * 1. Ideomotor apraxia

There is difficulty in miming a particular action (e.g. the patient is unable to show you how they would comb their hair or brush their teeth)

* 1. Speech, reading, and writing

1. Temporal lobes
   1. Learning and memory (partially a hippocampal function)
   2. Language comprehension (Wernicke’s area)
   3. Emotional processing
2. Occipital lobes
   1. Visual processing

*How do I test cognition at the bedside?*

1. Some tips on cognitive assessments:
   1. A cognitive assessment should, in general, be performed on any individual 60 years or over or in any individual in whom cognitive deficits are suspected
   2. If a person seems cognitively impaired, do a cognitive assessment early as doing a full psychiatric history may not be useful if the patient is quite confused
   3. Some signs that you may notice during the interview that indicate a cognitive assessment is needed:
      1. The patient is clearly disorientated or seems unable to focus
      2. The patient cannot give a coherent narrative as to how they came to be in hospital
      3. The patient presents as being thought disordered
         1. Patients with dementia may appear thought disordered as they are unable to logically connect ideas, but are not typically psychotic
   4. A patient’ level of education needs to be taken into account when doing cognitive tests as it may impact upon performance
      1. For instance, a patient may not be able to spell WORLD backwards if they cannot spell, and this does not reflect upon their ability concentrate
   5. It is important to be sensitive when doing cognitive tests, as patients are often distressed when deficits are identified
      1. Never say to a patient “We’ll start with the easy tests”, as they will feel worse if they do not perform well
2. A template for a full bedside cognitive assessment:
   1. Spatial orientation
      1. Does the patient know where they are?
         1. Which hospital, suburb, city, state, country
   2. Temporal orientation
      1. Does the patient have an idea of the time in terms of day, month, date, season and year?
   3. Registration
      1. Is the person able to hear certain objects be said, process them, and then repeat them
         1. E.g. being asked to repeat the words “apple, table, penny”
         2. Ask the patient to remember these words as you will ask them again soon
   4. Concentration
      1. Can the person:
         1. Spell WORLD backwards?
         2. Say the days of the week forwards and then backwards?
         3. Say the months of the year forwards and then backwards?
   5. Retrograde memory
      1. Can the patient recall factual information which they have previously learnt (called “semantic memory”)?
         1. Is the patient aware of the current Prime Minister or past Prime Ministers?
         2. Do they know what event occurred on September 11?
         3. Do they know their birthday?
         4. Do they know their address?
   6. Recall and anterograde memory
      1. Can the patient learn new information?
         1. Does the patient recall the words “apple, table, and penny” that you asked them to remember?
         2. Does the patient recall how they came to be in hospital?
   7. Visual agnosia
      1. Can the patient correctly identifying objects such as a pen or watch?
   8. Apraxia
      1. Ideomotor
         1. Can the patient show you how they brush their hair or teeth?
      2. Ideational
         1. Can the patient follow the following instruction (from the MMSE)?
            1. “I would like you to take this piece of paper in your left (non-dominant) hand, fold it in half, and then place it on your lap”
      3. Constructional
         1. Can the patient draw a pattern (e.g. overlapping pentagons from the MMSE)
      4. Dressing
         1. Can the patient show you how they take off and put on a cardigan, or how they would undo and then do up a button?
   9. Language testing
      1. Is the patient able to understand what you are saying?
      2. Does the patient have “effortful speech” (indicative of an expressive aphasia)?
      3. Is the patient able to write a sentence of their choice?
      4. Is the patient able to repeat a phrase?
         1. E.g. “No ifs, ands or buts” (from the MMSE)
   10. Frontal lobe tests
       1. Lexical fluency
          1. How many animals can the patient name in a minute or letters starting with a particular letter (e.g. F, A, and S “FAS” test)?
             1. The normal is 12
       2. Abstraction
          1. Can the patient understand a proverb such as “A stitch in time saves nine”? Keep in mind that there is an educational element to this test
       3. Similarities
          1. Can the patient tell you the similarities between an apple and orange, table and chair, car and train etc…?
       4. Trail making
          1. The examiner draws a series of letters and numbers:
             1. A 1 B 2 C 3 D 4 E 5 etc in random arrangements on a piece of paper. The patient is asked to link them in the appropriate sequence once you have demonstrated the start of the pattern (“1 goes to A, which goes to 2, which goes to B. Please continue the pattern”)
       5. Set-shifting
          1. Can the patient continue a series of patterns e.g. a pattern of squares and triangles which are drawn continuously with no gap between them (alternating sequences test)
          2. Can the patient perform the “Go no go test”:
             1. Ask the patient to tap their finger on a table when you tap once, but not when you tap twice
             2. A positive test is when the patient taps on the table continuously (a sign of perseveration)
          3. Luria motor task
             1. Demonstrate to the patient a motor action three times (“fist, edge, palm”):

Right fist hitting the left palm

Edge of right hand hitting the left palm

Palm of right hand hitting the left palm

* + - * 1. Ask the patient to repeat the sequence themselves
  1. Parietal lobe tests
     1. Dominant lobe (to do with verbal processing)
        1. Agraphia
           1. Ask the patient to write a sentence
        2. Acalculia (serial 7s)
           1. Ask the patient to subtract 7 from 100 and then 7 from this number, and so on (serial 7s)
        3. Left-right disorientation
           1. “Please place your right index finger onto your left ear”
           2. “Point to my left knee with your right hand”
        4. Finger agnosia
           1. “Show me your index finger of your right hand”
           2. “Show me your ring finger of your right hand”
     2. Non-dominant (to do with sensory processing, damage to the non-dominant parietal lobe leads to Gerstman’s Syndrome)
        1. Dysgraphaesthesia
           1. Ask the patient to close their eyes and identify a number you trace on their skin (e.g. 8)
        2. Astereognosis
           1. Ask the patient to close their eyes and identify an object by touch e.g. a pen
        3. Tactile extinction
           1. Ask the patient to close their eyes:

Tap their right hand

Tap their left hand

Tap both simultaneously

* + - * 1. Tactile extinction is present if the sensation is not perceived when both sides are tapped simultaneously, but is present when stimulated unilaterally
      1. Asomatognosia
         1. Ask the patient to show point to you their hands, and then their legs
    1. Language
       1. Test comprehension by assessing thought form
          1. An aphasia may present as thought disorder e.g. the “word salad” of Wernicke’s aphasia
       2. Reading
          1. Ask the patient to read a phrase or few sentences
       3. Writing
          1. Tested previously
  1. Clockface
     1. This can be a good screening tool as it tests initiation, for neglect, as well as executive functioning:
        1. Tell the patient “I would like you to draw a circle, then put the numbers on it as if it were a clock, and then draw the hands pointing to ten past three”
     2. Judge performance based upon:
        1. Speed in which task is performed
        2. Whether a logical approach was used (e.g. writing 12, 3, then 6 and then filling in the rest of the numbers)
        3. The contour of the circle and arrangement of numbers
        4. Whether numbers are missing from areas (which may indicate neglect)

*What are some common standardised measures that can be used to measure cognition?*

These include:

1. The Mini Mental State Examination (MMSE)
   1. The most commonly used cognitive assessment on general medical wards
   2. Scored out of 30, with below 24 considered a marker of dementia
   3. Brief, easy to perform, good inter-rater reliability
   4. Does not identify subtle forms of cognitive impairment or frontal lobe deficits
2. The Rowland Universal Dementia Assessment Scale (RUDAS)
   1. Unlike the MMSE, unlikely to be affected by cultural background, education, and language
      1. A more useful test for patients who find it difficult to communicate in English, and readily tested through an interpreter
   2. Scored out of 30, a score of 22 or less may be indicative of dementia
3. Montreal Cognitive Assessment (MOCA)
   1. A cognitive assessment which places more of an emphasis on frontal lobe testing than the MMSE
   2. A score of 26 or more is considered “normal”
4. The Addenbrook Cognitive Examination III (ACE-III)
   1. A more thorough cognitive assessment tool which spans several domains, and is often used in memory clinics
   2. Is more able to differentiate between different subtypes of dementia (e.g. Alzheimer’s Dementia from Frontotemporal dementia)
   3. Scored out of 100, with a score of less than 88 being impaired, and a score of less than 82 being indicative of dementia

*What is delirium?*

1. Delirium is an acute confusional state which:
   1. Is reversible
   2. Is associated with clouding of consciousness
      1. The patient is unable to initiate, sustain, and shift attention. They appear distractible, and may not be aware of the presence of others in their immediate vicinity
         1. The patient may seem “vacant” or “not quite present” in the room
         2. This is the defining feature of delirium that sets it apart from dementia
   3. Tends to fluctuate during the course of a day
      1. Typically worse at night (known as “sundowning”)
2. Epidemiology
   1. Occurs in 20% of medical and surgical inpatients
   2. Those particularly vulnerable:
      1. Dementia patients (who have a limited “cognitive reserve”)
      2. Individuals with sensory deficits (poor vision or deafness)
      3. The very young and the very old
      4. Postoperative patients
3. Clinical features
   1. Remember the mnemonic DELIRIUM5
      1. **D**isordered thinking (thought disorder)
      2. **E**motional lability
      3. **L**anguage impairment (receptive or expressive)
      4. **I**llusions, delusions, and hallucinations (positive psychotic symptoms)
      5. **R**eversal of sleep-wake cycle
      6. **I**nattention (clouding of consciousness)
      7. **U**naware and disoriented
      8. **M**emory deficits
   2. Common variants
      1. Hypoactive delirium (psychomotor retardation predominates)
      2. Hyperactive delirium (excess of motor activity and agitation)
      3. Mixed
4. Aetiology
   1. There may be one identifiable aetiology but, often, there are multiple aetiologies at work
   2. Potential causes (more common causes are underlined):
      1. Infective
         1. UTIs classically
         2. Pneumonia
         3. Cellulitis etc.
      2. Constipation
      3. Polypharmacy
         1. Including excessive use of:
            1. Benzodiazepines
            2. Opioids
      4. Uncontrolled pain
      5. Substance related
         1. Intoxication
            1. E.g. MDMA, amphetamines, and other illicit drugs
         2. Withdrawal
            1. Alcohol, benzo, or opioid withdrawal
         3. Wernicke’s encephalopathy
            1. Associated with thiamine deficiency in alcohol dependent patients
      6. Metabolic
         1. Electrolyte derangement (especially hyponatremia and hypercalcaemia)
         2. Acute renal failure
         3. Hepatic encephalopathy
      7. Endocrine
         1. Thyroid disease
         2. Parathyroid disease
         3. Adrenal related causes (e.g. Addison’s or Cushing’s Disease)
      8. Psychiatric medication related
         1. Neuroleptic malignant syndrome
         2. Serotonin syndrome
         3. Lithium toxicity
         4. Psychotropic overdose
      9. Intracranial causes
         1. CVA
         2. Subdural haemorrhage
         3. Encephalitis
         4. Tumour, head injury, or other cause of raised intracranial pressure
      10. Seizure related
          1. Non-convulsive status epilepticus
      11. **In 30% of cases no cause is found**
5. Prognosis
   1. Tends to last days to weeks
   2. 50% mortality at 1 year
6. Tips in clinical practice
   1. It is best to think of delirium as an “acute brain failure” (otherwise called encephalopathy), as it emphasises that delirium is a medical emergency which leads to further cognitive and functional decline the longer it remains untreated
7. Case

*Aanya is a seventy-two-year-old woman who is widowed and lives with her daughter, Priya, and her son in law.*

*She is quite physically fit for her age, and her past medical history is significant for type 2 diabetes. Aanya’s blood sugar levels have been somewhat high (between 10-12) recently, despite being on two oral hypoglycaemic agents. She is due to see an endocrinologist soon. Her memory is intact, and she is an active person with a good social circle.*

*Whilst at home Aanya sustains a fall. As she is not seriously injured and able to mobilise without difficulty afterwards, her daughter takes her to see the GP the day after. The GP notices that Aanya has sustained a linear cut to her right foot which appears clean and does not require suturing. He provides advice on how to keep the cut clean and dressed properly to Priya.*

*After two days Priya notices that Aanya’s cut is inflamed and warm, so makes an appointment to see the GP in 2 days. She has been slightly worried because her mother has been talking less and a bit slower with her responses.*

*At night time Priya hears her mother screaming. She finds her mother to be somewhat vague and unaware of her presence, and she seems to have a temperature. She is pointing and talking to people who are not there, and telling Priya to get away from her and not to hurt her.*

*Priya calls an ambulance and Aanya is transported to the local emergency department. She is found to be delirious, likely due to sepsis from cellulitis in the context of uncontrolled diabetes. She is started on IV fluids and IV flucloxacillin.*

*Whilst in hospital Priya finds that her mother is sometimes lucid but at other times quite distracted and paranoid. Anne stays by her mother’s side at night-time as she becomes more disorientated around this time. After a week, Aanya’s mental state is close to baseline, and she is discharged from hospital.*

*What is dementia?*

1. Dementia refers to a syndrome of global brain dysfunction which:
   1. Is acquired (distinguishing it from intellectual disability from a young age)
   2. Is progressive over time
   3. Occurs in the setting of clear consciousness
2. Common causes of dementia:
   1. **Alzheimer’s disease (62%)**
   2. **Vascular dementia (15%)**
   3. **Mixed (10%)**
   4. **Lewy Body Dementia (4%)**
   5. **Frontotemporal dementia (2%)**
   6. **Other (3%)**
3. Potentially reversible causes of dementia:
   1. Depressive pseudodementia
      1. Older patients with melancholic depression may have prominent cognitive changes that can resemble dementia
   2. Benign tumours (e.g. subfrontal meningioma)
   3. Normal pressure hydrocephalus
      1. There is a triad of urinary incontinence, ataxia, and cognitive impairment
   4. Subdural haematoma
   5. Vitamin deficiency states
      1. B1, B6, B12 vitamins
   6. Endocrine disease
      1. Hypothyroidism
      2. Addison’s Disease
      3. Cushing’s Syndrome
      4. Hyperparathyroidism
   7. Infectious diseases
      1. HIV related dementia
      2. Neurosyphilis (tertiary syphilis)
   8. Alcoholic related brain damage
      1. May improve with abstinence
   9. Neurological
      1. Wilson’s Disease
      2. Limbic encephalitis (paraneoplastic or autoimmune associated disorder)
      3. Multiple sclerosis
   10. Systemic inflammatory disorders (e.g. vasculitis, sarcoidosis)
4. Clinical features:
   1. Memory impairment
      1. Typically short-term memory is more affected than long-term memory
   2. Personality changes
      1. Disinhibition
      2. Impaired social cognition (i.e. differentiating what is and what is not appropriate behaviour in a certain context)
      3. Apathy
   3. Impaired reasoning
      1. Poor judgement
      2. Concrete thinking
      3. Impaired problem solving
      4. Catastrophic reaction
         1. Sudden agitation when a cognitively impaired patient is expected to perform a task above their current ability
   4. Sensory and motor deficits
      1. Agnosia
      2. Apraxia
   5. Language deficits
      1. Expressive and receptive aphasia
   6. Behavioural and psychological symptoms of dementia (BPSD)
      1. Symptoms of disturbed perception, thought content, mood, and behavior occurring in patients with dementia:
         1. Anxiety
         2. Disinhibition
         3. Aggression
         4. Wandering
         5. Apathy
         6. Delusions
         7. Hallucinations
   7. Sundowner syndrome
      1. Increasing confusion and falls in the evening
   8. Deterioration in functioning
      1. The features of dementia mentioned above typically lead to an insidious and progressive loss of functioning in terms of:
         1. Basic self-care (e.g. dressing)
         2. Advanced self-care (cooking, cleaning, shopping etc.)
         3. Driving
         4. Social dysfunction and isolation
5. Investigations (to rule out reversible causes):
   1. Tailored to the individual patient:
      1. Calcium, magnesium, phosphate (disturbances may be as a result of hyperparathyroidism)
      2. Thyroid function
      3. VDRL test for syphilis
      4. HIV serology
      5. B12/folate
      6. CT or MRI (the latter is preferable)
      7. Lumbar puncture
6. Individual subtypes of dementia
   1. **Alzheimer’s Disease**
      1. Increasing age is the main risk factor:
         1. Affects 40% of those over 85
      2. Pathophysiology:
         1. Amyloid plaques (extracellular beta amyloid peptide deposits derived from amyloid precursor protein)
         2. Neurofibrillary tangles (intracellular phosphorylated tau protein)
         3. Up to 50% loss of neurons in the cortex and hippocampus
            1. CT/MRI show brain atrophy, especially parietal/temporal lobes and hippocampal atrophy
         4. Degeneration of cholinergic neurons in the nucleus basalis of Meynert
      3. Early Alzheimer’s disease:
         1. Failing memory, disorientation (time especially)
         2. Getting lost
         3. Somewhat impaired ADLs
      4. Moderate Alzheimer’s disease:
         1. Focal cognitive deficits (apraxia, agnosia)
         2. Word finding difficulties
         3. Aphasia
         4. Severe memory deficits
         5. Personality deterioration
         6. BPSD
      5. Late Alzheimer’s disease:
         1. Fully dependent
   2. **Vascular dementia**
      1. Two main forms (which may co-exist):
         1. Classic “multi infarct dementia”
            1. Typically occurs due to large vessel disease following thromboembolism causing multiple infarcts
            2. Vascular risk factors often present
            3. Step wise progression

Periods of stability with acute declines

* + - * 1. Impaired attention and frontal features predominate
        2. Fluctuations in performance and night time confusion are very common
        3. Emotional lability, pseudobulbar palsy, gait disturbance and incontinence are characteristic

Pseudobulbar palsy refers to an upper motor neuron lesion of cranial nerves IX, X, and XII leading to increased gag reflex, reduced palatal movement, spastic tongue movements and monotonous and slurred speech

* + - 1. Progressive small vessel disease (Binswanger Disease)
         1. Largely indistinguishable from Alzheimer’s Disease
         2. MRI shows diffuse white matter pathology due to damage to small blood vessels
         3. Patients are often apathetic, are “slowed down”, and have prominent executive dysfunction
  1. **Lewy Body Dementia**
     1. Mixed pathology:
        1. Lewy Bodies (intraneuronal inclusions of abnormally phosphorylated ubiquitin and alpha-synuclein proteins) which cause neuronal loss
        2. Neurites can also be affected by these same proteins “Lewy neurites”
     2. The combination of fluctuating cognitive disturbance, recurrent visual hallucinations (often of people and animals), REM sleep disorder (acting out dreams) and Parkinsonism is classic
     3. Cognitive assessment usually shows marked deficits in attention, executive functioning, and visuo-spatial functioning
  2. **Frontotemporal Dementia**
     1. Form of dementia characterised by preferential atrophy of fronto-temporal regions, with usually early onset, and family history in a third of cases
     2. Pathology:
        1. Linked to abnormalities of tau and ubiquitin protein
     3. Early symptoms include personality change and social disinhibition, preceding other cognitive changes
     4. Clinical features:
        1. Memory change is not a prominent feature early on, nor are agnosias or apraxias
        2. Behavioural variant (commonest form)
           1. Apathy, loss of motivation
           2. Disinhibited behaviour
           3. Reduced empathy and social courtesy
           4. Overeating
           5. May perform well on cognitive tests like MMSE
        3. Language variants
           1. Semantic dementia

“Shrinking vocabulary”

* + - * 1. Progressive non-fluent aphasia

Disruption of expressive speech (similar to Broca’s aphasia)

“Effortful speech”

* + 1. There may be overlap with other neurological conditions
       1. Motor neuron disease
       2. Corticobasal degeneration

1. Tips in clinical practice
   1. Many individuals with dementia will have mixed pathologies e.g. Alzheimer’s pathology with prominent vascular changes, or Alzheimer’s pathology with Lewy Body changes
   2. It is worth keeping in mind that dementia is not a normal part of ageing, and that between the ages of 85-90 the prevalence of dementia is roughly 20%
   3. Treating potentially reversible causes of dementia will help to prevent further deteriorations in cognitive functioning, and may possibly lead to improvement in cognition as well
   4. Mild cognitive impairment is a term for subtle memory deficits that are more severe than those seen in normal ageing, but less severe than those seen in Alzheimer’s disease
2. Case

*Lisa is a seventy-year-old woman who lives with her husband, Ken, who is seventy-two years old. She has a daughter Karen who lives nearby with her husband.*

*Ken called an ambulance as Lisa had been quite agitated, and he is worried about her safety.*

*Ken reports to the emergency department doctors that Lisa’s condition has been slowly declining over the past few years.*

*She had been working up until the age of 65 as a librarian. She had to stop working around this time as her work performance had been deteriorating.*

*Prior to this Ken had noted that Lisa’s memory was gradually declining, and she was starting to forget certain conversations as well as appointments.*

*Despite this, she was able to function independently for a number of years and had been able to look after her basic activities of daily living (changing clothes, showering, toileting) and had been mobile. It was agreed upon when she retired that she would not renew her driver’s licence. Ken had been assisting with advanced activities of daily living such as finances and shopping.*

*Over the past one year Ken reports that Lisa’s memory has been particularly poor, and she often forgets conversations which had taken place the day before. She also becomes agitated when this is pointed out to her. Lisa has also been finding it difficult to recognise familiar faces, including her grandchildren and great-grandchildren. She can maintain a conversation, but it takes her some time to “find the right words”. It has been a stressful year for Ken, as he has been a full-time carer for Lisa, who has lost her ability to change her own clothes or perform basic tasks of daily living.*

*Ken and his daughter realised that Lisa’s condition was deteriorating, but were reluctant to seek help. More recently, Lisa has been finding it difficult recalling Ken’s face, and has become very agitated at times when she cannot recognise him. Prior to her presentation to ED she had been yelling and wandering on the streets, which prompted Ken to call the ambulance.*

*The ED doctors carry out a physical examination and performed routine bloods. There were no signs of infection, electrolyte disturbance, or other causes for a delirium and Lisa, despite being confused, is able to focus on those people around her. An MRI brain is ordered which shows some generalised atrophy, particularly over the temporal lobes, but no masses, signs of haemorrhage or hydrocephalus are seen. A MMSE done in ED is performed and is 16/30, with particular deficits noted in terms of memory and orientation. Concentration is intact.*

*An admission under the geriatrics team is organised. The geriatrician looking after Lisa explains to Ken and Karen that Lisa is suffering from Alzheimer’s Dementia. They are both accepting of this diagnosis, and are not surprised as Lisa’s mother and sister also suffered from dementia. After consultation with the family, it is decided that Lisa needs residential placement as Ken is unable to safely care for her at home. Karen is appointed Lisa’s guardian and financial manager, and organises for a transfer to a facility close to the family so they can regularly visit Lisa.*

***How to differentiate delirium and dementia***

The following is a guide, but note that both can occur together:

|  |  |  |
| --- | --- | --- |
| **Feature** | **Delirium** | **Dementia** |
| Onset | Rapid | Gradual |
| Course | Fluctuating | Progressive |
| Duration | Days to weeks | Months to years |
| Consciousness | Clouded | Clear |
| Psychomotor changes | Hyper or hypoactive | Minimal |
| Sleep wake cycle | Disturbed | Often normal |

***What do I need to know about eating disorders?***

There are two major forms of eating disorder:

1. Anorexia nervosa
   1. Core features include:
      1. Significantly reduced body weight (e.g. BMI less than 17)
      2. A fear of gaining weight
      3. A distorted body image (the individual feels they are overweight no matter how low their weight is)
      4. The individual’s sense of self is closely related to their perceived weight
      5. A variety of “inappropriate compensatory mechanisms” are used by the patient to lose weight (i.e. compensating for their perceived overweight state):
         1. Dieting
         2. Exercise
         3. Induced vomiting
         4. Abuse of laxatives, diet pills, or prescription medications (e.g. thyroxine or diuretics)
      6. Amenorrhoea may be present, but is no longer part of the diagnostic criteria according to DSM 5
2. Bulimia nervosa
   1. Core features include:
      1. Recurrent episodes of binge eating:
         1. Eating a large amount of food in a short amount of time, with a lack of control over consumption
      2. The use of inappropriate compensatory mechanisms to prevent weight gain, which includes self-induced vomiting for most patients
      3. There is usually a “set limit” below which an individual will tend not to lose weight, as there is less body image distortion as in anorexia
      4. According to DSM 5 the cycle of binge eating and inappropriate compensatory mechanisms must occur at least once a week for three months
3. Tips in clinical practice:
   1. Most patients with eating disorders are female, but they do also occur in men
   2. Eating disorders are often associated with a perfectionistic personality style, and disordered eating symptoms are often seen as a way of having a sense of “control” in response to stressful events or difficult social circumstances (e.g. ongoing discord within a family system)
   3. There is often overlap between anorexia and bulimia, with the core difference being a distorted body image and low body weight seen in anorexia
   4. Physical risk is the predominant risk in eating disorders, which have the highest mortality rates of all the psychiatric disorders

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**Further recommended reading:**

1. New Oxford Textbook of Psychiatry, Second Edition. Edited by Michael Gelder, Nancy Andreasen, Juan Lopez-Ibor, Jr., and John R. Geddes. Oxford University Press, Oxford, Pages: xxi + 1–986 (Vol. 1), 987–2022 (Vol. 2); 2009 **-*I recommend this as a good general reference textbook for psychiatry. It is easy to read, not excessively “DSM based”, and has good coverage of the various psychotherapies.***

2. Sadock, B. J., Sadock, V. A., & Ruiz, P. *Kaplan & Sadock's synopsis of psychiatry: Behavioral sciences/clinical psychiatry* (Eleventh edition.). Philadelphia: Wolters Kluwer; 2015***­-This is a useful text which is based upon DSM-5 criteria, it has useful sections on psychopharmacology, and has a good introduction into behavioural sciences (e.g. learning theory).***

3. Oxford textbook of psychopathology, Third Edition By Paul H. Blaney, Robert F. Krueger & Theodore Millon (Eds.) New York, NY: PB - Oxford University Press ; 2015. ***-This book covers the psychopathology of the various psychiatric disorders (covering everything except for treatment), provides an interesting historical perspective, and is enjoyable to read. It also covers disorders not well covered in other texts (e.g. dissociative disorders).***

4. Semple D, Smyth R. Oxford handbook of psychiatry. 3rd ed: Oxford university press; 2013.-***This is a favourite book of many registrars, as it is compact and comprehensive. It has useful sections on organic disorders, drug and alcohol disorders, therapeutic issues, as well as the various psychotherapies.***

**CHAPTER 3: THE PSYCHIATRIC HISTORY**

***What are the elements of a psychiatric assessment?***

The basic psychiatric assessment consists of:

1. Taking a psychiatric history (the information you have gathered from the patient, usually under a series of headings)
2. Conducting a mental state exam (being able to describe a “snapshot” of how the patient presented across a number of different domains during the interview)
3. Obtaining collateral information (to obtain different perspectives about the patient’s presentation)

***Some tips for taking a psychiatric history***

1. The psychiatric history, for the most part, has a structure identical to that of the medical history.
   1. The major differences are:
      1. A greater emphasis on taking a drug and alcohol history
      2. Taking a forensic history
      3. Asking about any past psychiatric history (in addition to past medical history)
      4. Taking a personal history
2. The purpose of the psychiatric history:
   1. To obtain information which can assist with diagnosis, as well as management
   2. To establish a rapport with the patient
   3. To understand the patient in the context of their day to day life as well as their past
3. Practical tips to assist with history taking:
   1. Always introduce yourself to the patient and explain why you are seeing them
      1. It is a good idea to take basic notes while you gather your history, as there is likely to be a lot of information
      2. Explain to the patient why you are taking notes (particularly important for paranoid patients)
      3. Explain to the patient about confidentiality and its limits
      4. Explain to the patient that there is a lot of information to cover and that, at times, you may have to interrupt the patient (if you don’t explain this at the start, you may appear quite rude throughout the interview)
      5. Sample introduction:
         1. “Hi. My name is Dr Kumar. I’m one of the mental health doctors working in the hospital. The emergency doctors tell me that you’ve had a rough time today, and I would like to ask you some questions so I can find out what’s been happening, and how I can help. Would that be ok?”
         2. “Because I want to learn as much about you as I can, I might interrupt you sometimes, but don’t mean to be rude. I’ll also be writing some notes so I don’t miss anything important”
         3. “I also tell everyone I see about doctor-patient confidentiality. What this means is that everything you say to me is private, and I can’t tell others without your permission. The only exceptions are if I feel your safety or the safety of others is at risk”
         4. “I’ll start with some basic questions….”
            1. This sample introduction will need to be adapted to the particular situation e.g. an aggressive patient is unlikely to want to hear this much detail, but easing an anxious patient into an interview may help make them feel more comfortable
   2. You will be asking questions during the history, but you will also be observing the patient (for instance, their behaviour, appearance, affect)
      1. These observations are an important part of the mental state exam, so you must practice being observant, while also being able to take notes and ask the right questions
      2. During your history, you will take a “systems review” (i.e. screen for the major psychiatric disorders), which will also be reported in the mental state exam

***Some useful communication skills***

1. The following are some useful communication skills that can assist you to gather more information, and develop a rapport with your patient as you take a history:
   1. *Non-verbal communication*
      1. Get down to the patient’s level
         1. Towering above your patient can present as being intimidating and make it difficult to establish a rapport
            1. That said, if you believe a patient is at risk of becoming violent, it may be worth standing up and staying close to the exit
   2. *Use minimal encouragers*
      1. It is useful to intermittently show your patient that you’re listening. You may do this by nodding occasionally or using verbal cues in response to statements made by the patient (e.g. saying “ok” to confirm you heard what the patient said or “hmmm” to indicate that you are thinking about what was said)
   3. *Verbal communication*
      1. Open questions
         1. Open questions are questions that invite the patient to talk about their experience in a more detailed manner, and for them to describe what is important to them
         2. Open questions are useful at the beginning of interviews as the patient can orientate you to their presentation using their own words
         3. Open questions can help to build rapport as the patient feels “heard”
         4. Examples:
            1. “What’s happened for you to come to hospital today?”
            2. “Can you tell me about anything that’s been making you feel stressed lately?”
            3. “Can you tell me about how you’ve been feeling recently?”
   4. *Closed questions*
      1. Closed questions invite more direct answers (often “yes or no” responses), and can be useful for clarifying important information
      2. They can be useful when establishing a diagnosis, and in establishing whether there are any serious harms identified during an assessment
      3. Examples:
         1. “Have you been feeling low in your mood?”
         2. “Have you been sleeping well?”
         3. “Have you had any thoughts of wanting to hurt yourself?”
   5. *Reflections*
      1. Reflections are used by the assessor to “mirror” what emotions the patient has described, to show that you are listening, and to clarify that you are understanding correctly what the patient is saying
      2. Examples:
         1. “It seems to me you were feeling like your partner wasn’t listening to you when the two of you were arguing?”
         2. “It sounds like you were feeling upset with yourself after you cut yourself?”
            1. There are question marks at the end of these statements, as you are more inquiring about how they felt, rather than telling the patient how they felt
   6. *Summarising and checking* 
      1. This technique involves summarising the information you have heard, and checking that you have it right
      2. This can help to make your history is accurate, and helps a patient feel heard
      3. Particularly useful at the end of interviews
      4. Examples:
         1. “From what you’ve said, it sounds like your mood has been low for a few weeks, that you’re having difficulty sleeping, and that you’ve lost a substantial amount of weight. Is that right?”
         2. “I’m hearing that you’ve felt very low in yourself, and that sometimes you wish you weren’t alive, but have not had any thoughts or plans of hurting yourself. Is that right?”

***Staying safe***

1. The vast majority of mental health patients are no more likely to harm you than their “medical” counterparts
   1. That said, some patients (e.g. psychotic patients or antisocial patients with a forensic history) may be more likely to, so it is important to think about how you will stay safe before every patient encounter
   2. Useful tips for staying safe:
      1. Carry a duress alarm with you when seeing a patient
      2. Ideally see patients with someone else in the room (e.g. a member of nursing staff)
         1. This is particularly important if a patient has sexualised thought content or is disinhibited
      3. Have security present when interviewing a patient who is very aggressive (e.g. in the emergency department)
      4. Stay close to the door during the assessment, and make sure you can exit the room unimpeded
      5. Trust your “gut feeling” i.e. if you are feeling unsafe, then exit the interview in a calm manner
      6. Call a “code black” if a patient is very aggressive
2. This is a system that ensures that multiple staff are present to contain a situation in which a patient is very aggressive (e.g. verbally deescalate the patient or sedate them in the last instance)

***The psychiatric history***

1. The psychiatric history is taken under the following headings:
   1. ***Patient demographics***
      1. Gathering this information helps you to get a sense of the patient, which is useful before you explore in depth their presentation
      2. Demographic data to gather:
         1. Full name
         2. Age
         3. Place of residence
         4. Who the patient lives with
         5. Relationship status
         6. Children (including names and ages of each child)
         7. Occupation or study
         8. Financial situation
         9. Other important people in the patient’s life
   2. ***History of presenting complaint***
      1. This section is about how the patient came to be talking to you (e.g. in the emergency department)
      2. Focus on:
         1. The patient’s understanding of how they came to be in hospital
         2. Recent stressors in the patient’s life
      3. “Tell me about your day”
         1. Asking the patient to tell you about their day is helpful for patients that present as a bit vague, and cannot give detail about how they came to be in hospital
            1. Ask:
            2. “When did you wake up?”
            3. “How were you feeling when you woke up?”
            4. “How did you start your day?”
            5. “And then…”
            6. Keep inquiring about the patient’s day until you arrive at the point where they came to be in front of you
      4. Focus on how the patient felt throughout their day, as this is helpful:
         1. For instance, a patient who felt miserable and depressed since they woke up and subsequently overdosed as part of a predetermined plan is likely to need admission for treatment of a possible depressive illness
         2. In contrast, a patient who woke up feeling fine, had an argument with their partner, and impulsively overdosed may not need an admission if their period of feeling distressed has faded
   3. ***Do a psychiatric “systems review”***
      1. In this part of the interview you will ask questions to try and establish a diagnosis, and need to cover the diagnoses in the “diagnostic hierarchy” introduced at the beginning of the handbook
      2. You will not be able to ask all the questions listed below, but should focus your questions on what you believe is the most likely diagnosis (or diagnoses) for the patient
         1. In general, you should always ask about any depressive or psychotic symptoms when you see a patient for the first time
      3. Suggested screening questions:
2. *Asking about personality:*
   1. “How would you describe yourself?”
   2. Cluster a personality
      1. “Do you prefer being on your own?” (schizoid)
      2. “Do you find it difficult to trust people?” (paranoid)
      3. Do you believe in the supernatural, or that you have special powers?” (schizotypal)
   3. Cluster b personality
      1. “Do you find it difficult controlling your emotions?” (core feature of cluster b personality disorders)
      2. Asking about borderline traits:
         1. “Do you often feel empty on the inside?”
         2. “Do you ever hurt yourself in response to stressful situations?”
         3. “Do you often think about ending your life?”
         4. “Do you tend to have intense relationships?”
         5. “Are you often worried about being abandoned?”
   4. Cluster c personality
      1. “Are you an anxious person?”
      2. “Do you find it hard to be alone?” (dependent)
      3. “Do you often worry about being rejected, or think that you’re not as good as other people?” (avoidant)
      4. “Are you a perfectionist?” (obsessive compulsive)
3. *Asking about depression:*
   1. *Core features*
      1. “Over the past week or so, how has your mood been?”
      2. “When you smile, is it a real smile?”
         1. A useful question for patients with non-melancholic depression, as they may “appear happy”
      3. “Have you been feeling tired?”
      4. “What things do you usually enjoy doing?”
      5. “Have you been enjoying these lately?”
      6. “Have you been able to enjoy anything?” (anhedonia)
   2. *Psychological features*
      1. “Have you been feeling very guilty about anything?” (delusions of guilt may be present in psychotic depression)
      2. “Have you been thinking that you’re a bad person?”
      3. “How does the future seem?”
   3. *Biological features*
      1. “Have you been sleeping well?”
      2. “Have you had difficulty falling asleep?” (initial insomnia)
      3. “Have you had difficulty staying asleep?” (middle insomnia)
      4. “Have you been waking early in the morning and not been able to get back to sleep?” (late insomnia)
      5. “Have you had much of an appetite recently?” (ask if the patient has lost or gained any weight recently))
      6. “Have you been able to concentrate at work or in class?”
   4. *Melancholic features*
      1. “Is your mood better at a particular time of the day?” (diurnal variation is seen in severe depression, with mood being worse in the morning)
      2. “Do you feel heavy and slow?” (psychomotor retardation)
   5. *Psychotic features*
      1. “Have you been hearing any voices?”
      2. “Have they been saying nasty things about you?” (derogatory hallucinations)
      3. “Have they told you to end your life or hurt yourself?” (command hallucinations)
      4. “Do you feel as though there is something wrong with your body?” (somatic preoccupation or delusions)
         1. The elderly tend to become somatically preoccupied when depressed (e.g. that their bowels are not working)
         2. Some patients believe they have a specific disease (hypochondriacal delusions)
      5. “Do you feel as though your body is dead, or you’re wasting away?” (nihilistic delusions)
      6. “How are your finances?” (exploring for delusions of poverty)
4. *Asking about anxiety symptoms:*
   1. “Are there times that you become very anxious or frightened?”
   2. “In what situations do you become anxious?”
   3. “Do you ever have panic attacks?”
      1. Explore the patient’s understanding of what a panic attack is and what psychological and physical symptoms they experience, and the duration of the attack
   4. Panic disorder:
      1. “Do you worry about having more panic attacks?”
      2. “Have you been avoiding going certain places because you are afraid of having an attack?”
   5. Social anxiety disorder:
      1. “Do you worry that people will think negatively about you?”
      2. “Do you find it difficult going to a party or public function?”
      3. “Do you ever use alcohol to feel more comfortable in social situations?”
   6. Obsessive compulsive disorder:
      1. “Do you ever get thoughts that keeping coming into your head, no matter how hard you try to resist them?”
         1. Explore the content of obsessions
      2. “Is there anything you do to reduce the anxiety when you get an intrusive thought?”
         1. Clarify the compulsive act or thought
   7. Generalised anxiety disorder:
      1. “Are you the kind of person that worries a lot?”
      2. “What sort of things do you worry about?”
      3. “Does you constant worry stop you from doing things you want to do?”
   8. Post-traumatic stress disorder (PTSD):
      1. “Do you ever have flashbacks or nightmares about the terrible thing that have happened to you?”
      2. “Do you avoid certain places which remind you of what happened?”
      3. “Do you feel constantly on edge and find it difficult to relax when in public?”
         1. Intrusive reminders about extreme and often life threatening traumatic events, as well as hypervigilance, and avoidance of reminders of the traumatic event are core features of PTSD
   9. Explore any avoidance that is used to reduce the likelihood of experiencing anxiety (e.g. the patient with social anxiety who avoids parties or meeting new people)
5. *Asking about mania:*
   1. In general, it will be evident if a patient is manic by observing them
   2. Asking specific questions, however, may be useful given that some patients can “contain” their symptoms for a period of time, or may be hypomanic

Specific questions:

“Has your mood been happier than usual?” (elevated mood)

“Have you found that you don’t need as much sleep as usual?”

“Do you feel as though you are very important, or particularly special compared to others?” (grandiosity)

“Have your thoughts been racing?”

“Have you started any new projects?” (goal directed behaviour)

“Have you done any risky things that might be out of character, like spending a lot of money, or being more sexually active?”

This feature is more likely to be reported by close family or friends when a collateral history is taken, as manic patients often minimise these symptoms

* + - 1. *Asking about psychosis:*
         1. Some patients (especially paranoid patients, or patients with chronic schizophrenia) get irritated when asked about psychotic symptoms
         2. Start with a normalising statement e.g. “As a psychiatric doctor, I sometimes ask questions that some people find a bit strange, but I ask them to everybody. Is that ok?”

Perceptual disturbances:

“Do you ever hear voices that other people can’t hear, or while alone?” (auditory hallucinations)

**Establish:**

How many voices

What they say

Do they talk to the patient? (second person)

About the patient? (third person)

Running commentary? (constant commentary on the patient’s actions, even mundane ones)

If they are command in nature (i.e. do they tell the patient to harm themselves or others)

“Do you ever see strange things that others can’t see?” (visual hallucinations)

“Do you ever smell or taste strange things?” (olfactory and gustatory hallucinations)

“Do you feel as though there are small parasites under your skin?” (tactile hallucination seen in delusional parasitosis)

Delusions:

“Have you had any beliefs which other people have found strange?” (delusions will seem very real to the patient)

“Do you feel as though anyone is trying to hurt you, or follow you?” (persecutory delusions)

Referential delusions:

“Do people ever talk about you on the streets?”

“Do you get any special messages from the TV, computer, or radio that are meant just for you?”

“Do you feel as though people can control your thoughts or your body?” (passivity delusions)

“Do you feel that people can read your mind?” (delusions of thought broadcasting)

* + - 1. *Asking about eating disorders*
  1. Questions relating to body image
     1. “What do you think about your weight?”
     2. “Do you think that you’re overweight?”
     3. “What do you think when you look at yourself in the mirror?”
  2. Questions about weight
     1. “What is your weight now?”
     2. “What is the lowest weight you have ever had?”
        1. Also ask about the highest weight the patient has had over the last year
     3. “How often do you check your weight?”
  3. Questions relating to patient’s routines and meals
     1. “Take me through your usual day?” (focus on patient’s meals, and excessive exercise)
     2. “What kind of foods do you eat?”
     3. “Do you have special routines that need to be followed when you eat?”
  4. Questions relating to binging and purging

“Do you find that, at times, you eat uncontrollably a large amount of food in a small amount of time?”

“Do you ever make yourself vomit after meals?”

“Some people use special tablets (thyroid supplements, diuretics) or laxatives to lose weight. Have you ever tried these?”

* 1. Questions about medical complications

“Do you ever feel faint, dizzy, or find your heart racing?” (pre-syncope and bradycardia/arrhythmias)

“Do you ever get short of breath?” (heart failure)

“Have you ever had to be hospitalised for medical reasons because of your weight?”

1. *Asking about cognitive symptoms*
   * + - 1. Patients may be unaware of cognitive symptoms, and a collateral history may be more helpful along with a cognitive assessment. That said, some patients will recognise their deficits. Useful screening questions for patients (which can be adjusted for family members) include:

“Do you find that you’re becoming more forgetful?”

“Has anyone else told you that you’re becoming more forgetful?”

“Have you been getting lost recently or missing appointments?”

“Do you find that it’s difficult for you to find the words that you want to use when speaking to others?”

“Have you had difficulties with shopping or managing your money?”

“Have you had any accidents or problems driving?”

1. *Assessing for serious harm*
   * + - 1. It is best to explore for potential harms may relate to a person’s presentation as part of the systems review, as it logically flows on, and you won’t forget to do it
         2. It’s best to be direct when exploring for potential harms, as opposed to hesitant, as this will make the patient more comfortable in talking to you about their safety
         3. It is a myth that asking someone about whether they are having suicidal thoughts will increase the likelihood of them harming themselves. In fact, many patients will be relieved to be able to talk about these thoughts as they may have been hesitant about discussing them with other people
         4. It is most common when thinking about the potential for serious harm to explore whether the patient has suicidal thoughts, or thoughts of harming others
         5. There are also a wide range of other potential serious harms, which are discussed in the section which discusses the Mental Health Act in the “approach to afterhours” chapter of this handbook
         6. It is especially important to consider any serious harms which may impact upon children. All doctors working in NSW are mandatory reporters with a duty to inform Family and Community Services (FACS, formerly known as DOCS) if they feel that there is a potential for significant harm to a child (even if they are not your patient)

If a patient is in hospital, always ask if they have children, and whether there is a responsible adult looking after them at present

Some child protection issues to consider include the risk of emotional abuse to a child, physical and sexual abuse, and risk to education if the child is not attending school

Discuss with your consult if you are wondering whether to make a report to Family and Community Services and look at their website for guidance, as there is a mandatory reporter guide which can guide you as to whether a report to FACS is necessary

* + - * 1. Some useful questions when assessing for potential serious harm:

Exploring for suicidal ideation:

“Sometimes when people feel really down, they can have thoughts of wanting to die. Have you had those types of thoughts?”

“Have you had any thoughts of wanting to end your life?”

“Have you thought about how you might end your life?”

“Have you made any preparations to hurt yourself?”

E.g. writing a suicide note, settling wills, stockpiling medications, or having rope at home to use to hang themselves with

“Have you come close to hurting yourself?”

“Do you feel safe to be at home along right now?”

1. Exploring for risk of serious harm to others:
2. “Are you having any thoughts of wanting to harm particular people?”
3. “Why have you had those thoughts?” (this may uncover persecutory delusions)
4. “Have you made a plan to hurt anyone?”
5. “Do you have a weapon that you have been thinking of using?”
6. “Do you have a gun at home?”
7. It is worth considering if the patient has command hallucinations or passivity symptoms (so called “threat-control-override symptoms”)
8. **A note on “risk assessment”**
9. In this handbook, the term “risk assessment” is avoided. This is because the term implies an ability to “predict the future”. For instance, stating that “on risk assessment there is no risk of suicide” is misleading, as it is impossible to definitively state this. It is more useful to identify “serious harms” which are identified during an assessment, as these harms indicate the degree of distress the patient is experiencing (e.g. if they have suicidal ideation), and any harms currently identified relating to the patient’s presentation. The term “serious harm” is also used in the Mental Health Act, which also makes it a more practical term
10. ***Past Psychiatric History***
    * 1. Ask about:
         1. Any psychiatric diagnoses the patient may have (but keep in mind these may not be accurate)
         2. Past psychiatric admissions and their context
         3. If the patient has a community mental health case-manager or private psychiatrist
         4. If the patient has ever been on a community treatment order or depot medication (an indication of poor-compliance)
         5. Any past suicide or self-harm attempts
         6. If the patient has ever been on clozapine or had ECT
         7. If there has ever been a history of mania (particularly important if the patient presents as depressed, given that bipolar depression may worsen with antidepressants)
11. ***Past Medical History***

Ask if there is a history of:

Asthma or COPD (patients may need their inhalers charted on the ward and PRN salbutamol)

Diabetes (some antipsychotic medications worsen glycaemic control)

Heart problems (e.g. prior infarcts or arrhythmias)

High cholesterol or blood pressure (it is important to keep in mind the metabolic health of our patients who may rarely see GPs)

Epilepsy or seizures (psychiatric disorders are more common in epileptic patients, and many psychotropics lower the seizure threshold)

Recent head injury (subdural haemorrhages can lead to behavioural or cognitive changes)

Thyroid disorders (thyroid disorders can cause a wide variety of psychiatric illnesses)

Daytime sleepiness, snoring, and, if so, has the patient ever been investigated for sleep apnoea (some psychotropics can cause weight gain and night-time sedation which increases the risk of OSA)

Also, ask if the patient has a GP that they see regularly (and record their details if the patient has them)

1. ***Medications***

Ask about:

Current medications and doses (many patients do not know these particulars, and you may have to ask family or look at past records)

Allergies (and details of any particular reaction)

Why the patient feels they are on these medications (this may be a marker of insight, or it may not have been explained to them)

Compliance with medication

If the patient is on a depot, when did they last have it?

Side-effects (e.g. EPSEs, sedation, high cholesterol, sexual dysfunction)

If the patient is on clozapine

If the patient takes buprenorphine or methadone (for opioid replacement):

What is there dose?

Where do they obtain their doses?

When was their last dosage?

You will have to contact the provider (e.g. a drug and alcohol service) or local pharmacy to confirm the last dose prior to these agents being prescribed, and seek help from the drug and alcohol doctor on call if you are unsure about issues relating to these medications

1. ***Drug and Alcohol History***

Ask about whether the patient:

Smokes cigarettes

How many pack years?

Smoking induces enzymes which metabolise clozapine, so this is relevant when dosing clozapine

Drinks alcohol

Do they drink beer, wine, and/or spirits?

How much do they drink per day?

“One standard drink” refers to any drink with 10g of alcohol

Uses illicit drugs, such as:

* + - * + Cannabis

Colloquially known as “weed”, “pot”, “dope”, “Mary Jane”

Usually smoked in cigarette forms (known as “rollies”)

Inhaled using a “bong” (one dose is called a “cone”, which is usually how patients will report their use, there is great variation in doses)

* + - * + Methamphetamines

Colloquially known as “ICE”

Other stimulants

Cocaine (often referred to as “coke”)

Amphetamine (often referred to as “speed”)

Usually stimulants are available in powder forms, and can be smoked, diluted and injected, or directly inhaled

Stimulants are usually quantified as “points” (usually 0.1g of powder)

* + - * + Opioids

Heroin

Which is usually diluted and injected, or smoked

Otherwise known as “smack”, “gear”, or “dope”

Patients may also abuse prescription opioids e.g. oxycodone

* + - * + MDMA

Also known as “ecstasy”, “eccies”, or “molly”

Obtainable in powder or pill form

* + - * + LSD

A hallucinogenic found in liquid form which is soaked in paper and placed sublingually

Otherwise known as “acid”

* + - * + Tips:

The terms used to describe illicit drugs can be quite varied. If you are unsure about which drug a patient is referring to, it is best to directly ask them

The amount of money a patient spends per day on illicit drugs is often helpful in quantifying their usage

* + - 1. Ask about dependence features:
         1. Alcohol and other drugs (e.g. cannabis, opioids, amphetamines) can lead to a “dependence syndrome”, which has the same features regardless of the substance
         2. Using alcohol as an example (with dependence features in bold):

“Do you find yourself craving alcohol regularly?” **(craving)**

“Do you have a preference for particular types of alcohol?” **(narrowing of repertoire)**

“Have you found that you have needed more alcohol over time to have the same effect?” **(tolerance)**

“Do you ever get uncomfortable symptoms like tremors or shakes when you stop drinking?” **(withdrawal symptoms)**

“Do you ever drink first thing in the morning?” (a way of managing withdrawals)

“Has your drinking caused problems at work or with family or friends?” **(social dysfunction)**

“Has drinking taken over your life?” **(salience)**

* + - 1. Ask the patient if they have thought of reducing or stopping their use of the particular agent or sought help before from a drug and alcohol service

1. ***Forensic History:***

Ask the patient:

“Have you ever had problems with the police?”

“Have you ever been charged with a crime?”

“Do you have any upcoming court appearances?”

“Has there ever been an AVO (apprehended violence order) in place involving you?”

“Have you ever been to jail?”

1. ***Social History***
2. In the social history, you are aiming to get a sense of the patient’s daily life, their support structures, and functional capacity

Much of this information would have been gathered in the demographic section, or during the course of the history

Important elements to cover include:

Family relationships (e.g. parents, siblings, partner)***.*** It is often useful to use a genogram (a type of family tree where males are represented with a square symbol, and females with a circle) to get an idea of a patient’s family structure

Relationship with children, and their well-being

Relationships with friends

Any conflicts with close friends or family

Who the patient turns to when they need support

The patient’s interests, occupation, and daily routine

It is important to do a functional assessmentin some patients:

A functional assessment looks out how well the patient is managing day to day activities (often referred to as “activities of daily living”-ADLs)

Assess for:

Performance with basic ADLs (important for older patients)

Are they able to toilet, shower, and get dressed themselves?

What is their mobility like?

Performance with advanced ADLs (important for older patients, those with cognitive impairment, or negative symptoms of schizophrenia):

Is the patient cooking?

Is the patient able to clean their home?

Can they do the shopping and manage their finances?

Is the patient able to use public transport or are they driving?

Has the patient had any recent car accidents?

Some patients (e.g. those with dementia) have guardians that make certain decisions for them, and it is worthwhile having this information in case decisions about their medical care need to be made

1. ***Personal History***
   * 1. This section is usually left till last, but it is by no means the least important. It is difficult to understand a patient’s presentation and personality without having an understanding of their past, and how this shapes their present
     2. Tips:
        1. Try to use more open questions to capture the patient’s perspective of events that have been important in their life, and then later become more focussed to obtain particular information (“start broad, go narrow”)
        2. Be inquisitive, and curious, as opposed to factual
        3. Questions to ask:
           1. “Start broad”:

“I’m wondering what it was like for you growing up?”

“What was it like in your household growing up?”

“What kind of mum was your mother?”

“What kind of dad was your father?”

* + - * 1. “Go narrow”:

Clarify:

Any birthing complications, achievement of developmental milestones

Primary school experiences (reading and writing ability, special classes, bullying, conduct problems)

High school experiences (if they finished high school, academic results, peer relationships, bullying, conduct problems)

Further education

Employment history

Significant relationships

What is has been like for the patient being a parent (if applicable)

* + - 1. It may not be appropriate to take a personal history in an individual who is profoundly psychotic, or highly agitated in an emergency setting

**Collateral history**

Some patients may not be very forthcoming when they present to emergency departments, or they may be unable to provide much of a coherent history. This may be because they were brought to hospital against their will, they are intoxicated, have a reduced level of consciousness, are cognitively impaired, or are very thought disordered.

In these cases, a collateral history can be very useful to clarify the patient’s background, and particulars of their presentation. Sources of information may include parents, siblings, adult children or friends. In general, do not seek collateral history without permission, unless the information is important to establish the patient’s safety, or the patient is unable to provide a history.

Useful things to cover often include:

* The patient’s current circumstances (where they live, who they live with, important supports)
* How the patient came to be in hospital, and in what context
* Is the patient their usual self, or when were they last their usual self?
* Explore for active symptoms of mental illness (e.g. depression and psychosis)
* Current stressors
* The patient’s past psychiatric history (e.g. their last admission), medical history
* Any known drug and alcohol history
* Medication compliance (relatives will not always know which medication the patient is taking)
* Any evidence of serious harm to the patient or others (suicidal thoughts, self-harm, aggression), or other major concerns the person may have

**Further recommended reading:**

1. Burton N. Psychiatry. Acheron Press; 2016.-***This is a book primarily aimed at medical students, but it is an excellent resource, particularly the sections on patient assessment (both the psychiatric history and mental state exam). It also incorporates aspects of the arts and humanities, making it a very interesting read.***

**CHAPTER 4: THE MENTAL STATE EXAM**

***What is a mental state examination?***

In a basic sense, the mental state exam captures the important parts of what you observed while interviewing the patient. It covers both what you “saw” as well as what you “heard”.

The mental state exam starts from the very first moment that you see your patient. Whilst taking your history, be observant for any signs or symptoms of psychopathology (covered in the chapter covering the “language of psychiatry”), as these will be an important part of the mental state exam. This will include what psychopathology you have observed (e.g. a depressed patient with psychomotor retardation), and what the patient has told you (e.g. a depressed patient describing their delusions of guilt).

Also, be alert for any general things that happen during the interview which you feel might be significant, which you can then describe in “common sense terms” when constructing your mental state exam. For instance, you might have a general impression that the patient presents as “flirtatious”, “arrogant”, or “subdued”. These are important terms to use in your mental state. It is also helpful to describe your “counter-transference”, in which you reflect upon how you felt towards the patient during the interview, as this can assist you in understanding how this particular patient affects you or others, and how this might be important when treating them.

The mental state exam, therefore, is a combination of your common-sense description of what you have seen and heard during the interview, as well as a place where you can be more formal in the description of psychopathology you have observed.

It is also important that realise that a patient’s mental state is in a constant state of flux from moment to moment. A patient might be quite settled when you interview them, but later becomes quite aggressive on the ward. Their mental state has changed and, in this sense, a mental state exam is a “snapshot” of how the patient presented while you were with them.

***What are the components of a mental state exam?***

The mental state exam is carried out under the following headings (when using particular terms in your mental state, try to justify in simple language why you have used that particular term for this patient):

1. Appearance and behaviour
   1. Level of consciousness
      1. E.g.:
         1. Alert
         2. Hypervigilant
         3. Drowsy
   2. Appearance
      1. E.g.:
         1. Ethnic background
         2. Body build
         3. Style of clothing
         4. Medical state of the patient (e.g. signs of dyspnoea, pain, diaphoresis, jaundice, weight)
         5. Degree of self-care and hygiene
         6. Tattoos
         7. Scars
         8. Indications of self-harm (old or new)
      2. Having a detailed description of a person’s appearance can be useful if a patient under the Mental Health Act absconds from an ED, as you can provide this description to police who can return the patient to hospital
   3. Behaviour
      1. E.g.:
         1. Pleasant and cooperative
         2. Apathetic
         3. Fatuous
         4. Flirtatious or overfamiliar
         5. Threatening
   4. Body language
      1. E.g.:
         1. Degree of eye contact
         2. Posture
   5. Psychomotor changes
      1. E.g. psychomotor excitation or retardation
   6. Signs of abnormal movements
      1. E.g.:
         1. Restlessness
         2. Tremor
         3. Bradykinesia
         4. Chorea
         5. Dystonic reactions
         6. Abnormal facial movements
2. Speech
   1. Note the following:
      1. Signs of dysarthria
      2. Signs of dysphasia
      3. Volume of speech
      4. Tone of voice
         1. Including whether there is any tonal variation
      5. Rate of speech
3. Mood
   1. Subjective mood
      1. That is, how the patient describes their mood in their own words
   2. Affect
      1. Objective signs of a patient’s mood you will observe (e.g. an affect which is blunted, flat, reactive, or perplexed)
   3. Anxiety symptoms
   4. Explore for any potential serious harms
4. Thought
   1. Stream of thought e.g. thought blocking
   2. Form
      1. Is the patient making sense?
      2. Identify types of thought disorder and record examples of these
   3. Content
      1. Assess for:
         1. Obsessions and associated compulsions
         2. Overvalued ideas and delusions
         3. General thought content (i.e. summarising in a very brief way the main things the patient was talking about during the interview)
5. Perceptions
   1. Note the presence of perceptual disturbances in any modality
   2. Note whether the patient appears to be “responding to internal stimuli”
      1. For instance, is the patient giggling to themselves, talking to themselves, or staring and pointing at empty space
      2. This is an objective measure of whether a patient is hallucinating, as some patient’s will deny having these experiences even if they are
6. Cognition
   1. If you have performed a standardised cognitive assessment you may record the patient’s score here, as well as particular strengths and deficits
   2. You might also comment that cognition was not formally assessed, but comment upon more indirect measures of cognition
      1. E.g.:
         1. The patient’s level of consciousness (particularly if there was clouding of consciousness, which might indicate delirium)
         2. The patient’s ability to concentrate
         3. Whether the patient had memory impairment (e.g. repeated themselves frequently, forgot the question which was asked, or is unaware of the sequence of events leading to hospitalisation)
         4. If the patient is aware of their current medical care and plans for discharge etc.
7. Insight
   1. Comment upon whether the patient:
      1. Believes they are currently mentally unwell
      2. Believes that they need treatment
      3. Intends to continue their medical treatment and to engage in follow-up upon discharge

***Examples***

The following examples are in-depth mental state exams and on the wards, mental states may be somewhat shorter. It is worth practicing more in-depth mental states periodically in order to develop the skill of being able to perform sophisticated examinations.

*A mental state exam of a psychotically depressed person:*

*Hasim is a 23-year-old male of Middle-Eastern background. He is tall, of slim build, and has black hair, as well as an unkempt beard. During the interview, he was dressed in casual attire, with grey tracksuit pants and a plain black t-shirt. Hasim’s clothes appeared stained as if they had not been washed in some time, and he was slightly malodorous. Hasim presented as being generally quiet and timid, and he seemed to be cooperating with the assessment as best as he could. I felt a general sense of heaviness and lethargy during the interview. There was prominent psychomotor retardation, as Hasim tended not to move in a spontaneous manner. His speech was soft, had little tonal variation, and his answers tended to be short. Hasim reported his mood a being “very down”, and his affect was flat. Hasim reported that he has had suicidal thoughts, and that he has been contemplating jumping in front of a car. He reports not feeling safe to be on his own. Hasim’s thought form was logical, although there was poverty of thought content. He described mood-congruent delusions, in that he had nihilistic delusions that his vocal cords were decaying, which he explained was why he wasn’t able to speak very much. He denied auditory or visual hallucinations, but did appear to be blankly staring away from me on a few occasions, so may have been responding to internal stimuli. Cognition was not formally assessed, but Hasim had slow processing speed, took a long time to respond to questions, and performed poorly on tests of concentration (days of the week backwards). He did not seem clouded, as he was aware of my presence and able to converse with me in a mostly sustained manner. He accepted the idea that he was suffering from a severe depression, and was willing to be admitted to hospital.*

*A mental state exam of a patient with schizophrenia who is currently psychotic:*

*Jane is a 32-year-old female of Caucasian background. She was notably overweight, and had a short stature. Jane had a tattoo of a dragon on the anterior aspect of her right forearm (about 15cm in length), and had black hair which was straight and extended to her shoulders. Jane was obviously psychotic, but was generally pleasant, and cooperative during the interview. I found myself feeling quite confused during the interview due to Jane’s disorganisation. There were no psychomotor changes evident. Jane’s speech had a good degree of tonal variation, was appropriate in volume, and she was able to converse freely. Jane reported her mood as being “scared”, and her affect was generally tense. She denied suicidal thoughts, but reported that she would make the individuals who were persecuting her “pay”, but denied specific plans to harm anyone. Jane presented as being thought disordered, and some of her responses were quite tangential. For instance, when I asked her who her close family were, she told me that she was “sick of being followed” and spoke of her delusions in detail. Jane had systematised persecutory delusions that individuals from the government had planted listening devices in her home, were tracking her movements, and following her on the streets. She believed that these events were linked to a series of events from her childhood which had extended throughout her life. She held delusions of reference that agents of the government were communicating with her via news readers on TV. Jane reported hearing one male voice, even when alone, which spoke to her and threatened to kill her. She believed this was an agent of the government, although there was no command element. She was responding to internal stimuli, and conversed with this voice during the interview. She was alert, generally able to focus on our conversation, and oriented to time and person. She had no insight into the fact that she was experiencing a psychotic relapse.*

*A mental state exam of a patient with established bipolar disorder who is currently hypomanic:*

*Anita is a 28-year-old female of Indian background. She has an athletic build, and long straight black hair extending past her shoulders. She had a good degree of self-care. Her clothing was bright and colourful. She was wearing a rainbow colour short sleeved t-shirt, as well as tight fitting blue jeans. She wore pink sneakers, and had heavy green eye shadow on. Anita presented as very cheerful during the interview, but I felt uncomfortable at times when she was somewhat flirtatious and asked me personal questions. She had psychomotor excitation and appeared uncomfortable sitting still, and constantly tapped her right foot on the ground. Her speech was loud, enthusiastic in tone, and quite pressured. There were clang associations, as Anita repeated the phrase “happy as Larry”. She rated her mood as “the best as it’s ever been”. Her affect was bright, and she was laughing at numerous points throughout the interview. She denied any suicidal thoughts. Her thought form was somewhat disturbed, and she tended to be quite circumstantial. For instance, when I asked her where she grew up she went into detail discussing the state of the weather before answering my question. There were no delusional themes present, but there were grandiose themes. For instance, Anita spoke of how she would start her own charity organisation within the next week, and that she would write an award-winning play despite having no experience with this. She denied perceptual disturbances, and did not appear to be responding to internal stimuli. Cognition was not assessed formally, but she had impaired concentration. Anita denied being elevated in mood, and felt that she did not need to take her lithium ever again.*

**CHAPTER 5: THE FORMULATION**

***What is a formulation?***

We have now covered the following aspects of patient assessment:

1. Taking a psychiatric history
2. Conducting a mental state exam
3. Obtaining collateral information

The psychiatric formulation goes a step further than these elements, and tries to “make sense” of the information that you have gathered. A formulation tries to answer the question of:

*“Why has this person presented with this problem, at this point in time, and in what context?”*

Or, put another way:

*“What is going on with this person for them to be here now, and how is the past relevant?”*

The formulation often goes a step further, as we try to “project forwards” and see what the future holds for this patient:

*“What are the challenges that this patient faces, and what strengths do they have to tackle these challenges?”*

These are some questions to keep in mind when formulating a case.

***Why is it important***

There is the danger in psychiatry to purely base management upon the history and mental state i.e. to treat symptoms:

E.g. To diagnose a patient with mania as part of a bipolar disorder, start mood stabilisers, and discharge them back home when they are euthymic only to find that they re-present to hospital soon after.

Diagnosis is important, but formulating is just as important. Without a formulation you may never know:

1. Why the patient keeps presenting to hospital (the “revolving door” situation commonly seen on acute wards)
2. What is happening in their life and how this is relevant to their presentation (e.g. why is it that a patient continuously abuses substances?)
3. What challenges they face and, importantly, what strengths and resources they have to tackle those challenges

Formulating a patient is a very “humanising” exercise. It makes the patient a “person” and not a diagnosis, and it gets you thinking about their life. It also assists in managing the patient, and may assist you in “breaking” the revolving door scenario.

***What models are there that can help formulate a case?***

There is no such thing as the “perfect” formulation. To some extent it is one of the main reasons why psychiatry is both an art and a science. Two psychiatric doctors may formulate the same person’s predicament in two seemingly different ways. These two perspectives may both have their merits, and together contribute to a richer understanding of the patient.

That being said, there are some basic models that can help to construct a formulation. These include:

1. The “5 P” model
   1. This model uses a “temporal” (i.e. time based) approach to formulation, under the headings of:
      1. **P**resenting problem (how did the patient come to clinical attention?)
      2. **P**recipitating factors (what was the immediate cause of their presentation?)
      3. **P**redisposing factors (what in the patient’s past seems relevant and linked to what is happening now?)
      4. **P**erpetuating factors (what seems to be driving the patient’s ongoing problem?)
      5. **P**rognosis (how does the future seem, and what strengths does the person have to tackle these?)
      6. It is also worth considering the patient’s **P**ersonality, as this is the core of the patient’s identity

*It isn’t enough to simply list information under each heading, ideas need to be linked together in a coherent way, which takes practice.*

* 1. Why think about a person’s strengths?
     1. We spend a lot of time thinking about a patient’s “weaknesses”, or poor prognostic factors, such as medication non-compliance. It is just as important to think about a patient’s strengths, as these are what you can work with to help the patient. For instance, a strong therapeutic relationship may be present which, over time, can reduce the person’s mistrust over medications.

1. The “biopsychosocial” model (you might also add “cultural and spiritual” aspects)
   1. This is a well-known way of looking at a patient’s presentation from a variety of perspectives:
      1. Biological perspectives
         1. E.g. A 24-year-old male patient with depression may have a strong family history of affective disorders, and prednisone they were prescribed for a series of asthma attacks may have precipitated their illness, along with alcohol misuse
      2. Psychological perspectives
         1. The same patient’s girlfriend may have died prior to presentation. This may have awakened the trauma of previous losses to the patient, and may be contributing to certain emotional (“transference”) reactions to health professionals, thereby impacting upon their care
      3. Social perspectives
         1. This same patient may be coping with homelessness, social isolation, as well as difficulty with finances that compounds his problem
      4. Cultural perspectives
         1. The patient may be of from the Philippines originally, and recently migrated to Australia. He may be adapting to a new lifestyle, missing friends, places from home, and familiar customs, while also adapting to a new home
      5. Spiritual perspectives
         1. The patient may be of Christian background, and finds that his faith in god and support from his church community are a comfort to him amidst all the difficult things that he has faced recently
   2. Psychological factors are internal factors that impact upon the person’s emotional state, whereas social factors are more external and in the patient’s environment (although they are closely linked)
2. Psychological models
   1. A patient’s internal world can be thought of using a variety of psychological models which can assist in developing a formulation. The following is a brief review of some useful theories:
      1. *A psychodynamic perspective (based upon the work of Sigmund Freud):*
         1. This model is based upon a belief that an individual’s behaviour is affected by both conscious thought processes as well as unconscious experiences which they may not be aware of
         2. There is a focus on linkages between a patient’s past, and how this contributes to an understanding of their current difficulties:
            1. Themes often tend to recur throughout an individual’s life without them consciously being aware of it, and some of these patterns can be unhelpful, and cause the individual to face similar problems throughout life. For instance, a patient who enters a series of abusive relationships which have a striking resemblance to their own parent’s relationship
         3. Emphasis is placed upon the relationship between the therapist and patient, including:
            1. Issues of transference and counter-transference:

Transference refers to unconscious feelings that the patient has towards their therapist, which reflects previous relationships in their lives. For instance, a patient who has negative reactions to male doctors because of early life abuse they suffered from a male carer

Counter-transference reactions are similar, but involve unconscious feelings that the therapist, or doctor, has towards their patients

* + - * 1. The nature of the relationship itself is seen as important:

If a patient develops a secure and safe relationship with their therapist, they, hopefully, will be able to generalise this to other relationships in their life

* + 1. *An attachment theory perspective (born of the ideas of John Bowlby):*
       1. This theory provides a model of thinking about the ways in which human beings form attachments with one another
       2. Key ideas:
          1. After birth, a baby is vulnerable and, in order to survive, needs to develop a strategy to obtain care and have needs met (material and emotional)
          2. The relationship between an attachment figure (such as the patient’s mother) and child (or “dyad”-a relationship between two people) early in life has profound impact upon the child’s future ways of relating with others
          3. Depending upon the nature of this early attachment the child may develop one of several attachment strategies or “styles”:

Secure attachment

When the mother is able to attend to the needs of the child and provide warm, consistent care, the child later in life is more likely to be able to be emotionally available to others, whilst also being comfortable in their own company

Insecure attachment

If the mother is emotionally available at times to the child, but not consistently, an ambivalent attachment style may occur. Individuals with this style find it difficult to settle their own emotions, or to be comforted by others

If the mother is rarely available and emotionally distant, the child may develop an avoidant attachment style. Such an individual may prefer to be on their own, and find it uncomfortable to have emotional closeness with others

Disorganised attachment

Seen in cases of severe trauma, and includes reactions such as dissociation. The individual has no set template of how to form attachments with those around them

* + 1. *The Eriksonian stages of development (developed by Erik Erikson):*
       1. Erikson describes 8 developmental stages. Each stage describes a conflict that the individual strives to resolve and, if achieved, leads to a series of “virtues”. The following are some of the stages which are particularly useful when formulating a case:
    2. Trust versus mistrust (birth to 18 months)
       1. The emotional and physical care that a baby received from its early attachment figures (typically the mother) leads to an ingrained sense of safety and security which is carried throughout life. Without this, an individual may face ongoing emptiness and sadness throughout life
       2. Virtue of hope
    3. Identity versus role diffusion (ages 13-21)
       1. With the onset of puberty, the individual embarks upon the task of establishing an identity and discovering “who they are”. The individual develops a sense of identity by exploring romantic relationships, developing a circle of friends, a sense of direction in terms of the future, dress-sense, interests, and other domains. By exploring these aspects of themselves, the individual develops a sense of their identity and values. Difficulties with this stage leads to a “role diffusion” in which the individual has a poor sense of self and belonging
       2. Virtue of fidelity (a sense of authenticity)
    4. Intimacy versus isolation (ages 21-40)
       1. The individual sets upon the task of forming meaningful relationships with others, in terms of friendships, relationships with family, and romantic relationships. Difficulties with this stage may lead to isolation and difficulties with intimacy
       2. Virtue of love
    5. Generativity versus stagnation (ages 40-60 years)
       1. The individual finds ways to contribute to society in meaningful ways. This may occur through raising children, having a job that one finds fulfilling, as well as having creative interests. The individual feels as though they have contributed to the world in a meaningful way. Difficulties with this stage may lead to a “mid-life crisis” as well as substance misuse
       2. Virtue of care
    6. Integrity versus despair (ages 60-death)
       1. As the individual gets older they begin to contemplate mortality, and to look back on their life with acceptance (the “good and the bad”). The individual comes to accept their mortality and feels that they have led a meaningful life. Difficulties with this stage can lead to profound despair, and possibly depression
       2. Virtue of wisdom

These stages are particularly useful in thinking about potential challenges that a patient may be coping with in the long-term after they leave hospital.

***How do I “construct” a formulation?***

Some basic tips to formulating a case:

1. A formulation is not a “summary”, it is about “linking ideas” together
2. Psychological theories can help with formulating, but always be practical and say what you actually think is going on (i.e. don’t use “fancy theories” unless you think they are applicable)
3. Always keep in mind a patient’s personality style and strengths (as these generally guide management)
4. Practice, and practice (practicing formulation skills can be a productive way of utilising supervision)

One basic approach to formulating a case:

1. *Take a thorough history:*
   1. Never forget to do a developmental history. You cannot formulate a patient’s presentation adequately without this key step
   2. Asterisk things that seem important as you take your history (trying to capture important biological, psychological, and social factors)
2. *After taking a history, write down the following headings (based upon the 5P model):*
   1. Presentation
   2. Context
   3. The past
   4. The future
3. *Write down the “important features” below the appropriate headings to make a “formulation skeleton”*
   1. What this leaves you with is a few headings which are “time based” with important factors underneath
   2. It is easier, and more sophisticated, to use a time-based system as it logically flows in sequence when your formulation is complete
   3. Try to only have a short sentence on “presentation”, otherwise you run the risk of your formulation becoming more of a summary
4. *“Put it together”*
   1. Using the information you have put into headings, spend some time thinking about the person’s case and how you can “put it all together” in an interesting and representative way
      1. A formulation may be one “solid sized paragraph” in length (for a basic formulation), or it may be 2-3 pages of typed material (e.g. for a psychotherapy case)
   2. This process takes practice. One good thing about having a “formulation skeleton” is that you can do this for every patient you see in ED (e.g. on overtime), and it will only take you an extra two minutes or so to develop with a bit of practice. This will allow you, with practice, to know what important elements to include in a formulation

***An example of the “basic approach” to formulation***

1. *Step 1 “Take a thorough history” and initial assessment*

**Consider the following example of a history taken by a psychiatry registrar in the emergency department, which is being presented to their consultant:**

Divina is a 17-year-old-girl referred by an ED registrar for assessment after presenting with suicidal ideation.

Background:

Divina presented to school today and, during one of her classes, was noted to be teary. When approached by a teacher she reported no longer wanting to be alive and the teacher organised for Divina to go to hospital for assessment.

Divina’s mother, Sophia, is present in the ED and reports that Sophia hasn’t been her usual self for several months.

Interview with Divina:

Divina is currently 17 years old, is in year 11 of high school, and lives with her mother and younger brother Daniel. Her parents have been separated since she was 7 years old, and she has no contact with her father.

Divina told me that she woke up this morning feeling exhausted, despite having 8 hours of sleep. She forced herself out of bed, skipped breakfast, and went to school. She was already feeling sad when she arrived at school, but wasn’t quite sure why. She managed to get through some classes, but finally felt that “I couldn’t deal with anymore”, and told her teacher how she had been feeling, including that she wanted to die.

For about three months Divina reports that she has felt down, especially in the mornings, and that she is always tired, made worse by the fact that her sleep is broken. Her appetite has also been low. More recently she has had thoughts of wanting to end her life by overdosing on large amounts of Paracetamol, although she denies any overdoses. She has ongoing thoughts of wanting to die, and feels that she may hurt herself if left alone. She has no psychotic symptoms.

When I asked about any recent stressful events, Divina told me that she has been under a lot of stress recently.

Her mother is a single mother, who spends long days at work in order to provide for her and her younger brother Daniel, who is thirteen years old. Daniel has a history of epilepsy, and has had several severe seizures over previous months. Divina reports that she has been very worried about her brother, as they have a close relationship. Her mother has had to take time off work to take Daniel to medical appointments, which has made her more stressed as she is losing income.

Divina told me that she is a “perfectionist”, and that she likes everything to be in order. She had tried to cope with her family stressors by focussing more on her studies so that she could do well in high school, study in university, and help her mother financially in the future.

Divina has no past psychiatric history.

Divina reports that she has had severe asthma since she was a child and, over the past few months, has had ongoing cough and wheezing throughout the day. She saw her local GP who prescribed her a course of prednisone a few months ago and, since then, the asthma has been controlled on inhalers alone.

Divina is currently taking Fluticasone/salmeterol inhalers twice a day, and uses salbutamol as needed for her asthma. She has no allergies and is not on any other medication.

Divina has never smoked, never used alcohol, and denies any illicit drug use. She has never had problems with the police.

In terms of social history, Divina tells me that she usually enjoys watching television, and is a fan of science-fiction shows. She enjoys reading, has some friends, but hardly sees them as she is usually busy studying or working part time.

Divina’s mother works as a nurse, and does quite a lot of shift work. Because of recent financial strains, Divina has taken on two part-time jobs to earn extra money for the family. She also makes sure that Daniel and she have food on the table in case their mother is busy working.

Her mother has two brothers who live with their own family’s interstate. Divina gets on with them well, and speaks to her cousins regularly on the phone.

In terms of her developmental history, Divina was somewhat reluctant to talk about her past. She did reveal to me that her parents had a very difficult relationship. She could recall many times when her father would be intoxicated on alcohol whilst at home, and when he would be physically abusive towards her mother. When this would happen at home Divina would make sure that her brother was safe, and was relieved when her parents separated. Divina reports liking certain boys in the past, but has always been too busy to pursue a relationship. She has done well academically, and wants to study medicine after leaving school.

On mental state exam, Divina is a 17-year-old girl of Spanish background. She was dressed in her school uniform. She had a good degree of self-care. Divina was initially guarded about discussing her recent difficulties, but was able to open up as the interview progressed. She had obvious psychomotor retardation. Her speech was soft and lacked a degree of tonal variation. She reported her mood to be “very low”, and her affect was predominantly teary, with little variation in her facial expression. She has ongoing suicidal thoughts with a potential plan of overdosing on Paracetamol. Divina’s thought form was logical, and no delusional themes were apparent. Her thought content was focussed on recent stressors, particularly her brother’s illness. She denied perceptual disturbances, and did not appear to be responding to internal stimuli. Formal cognitive testing was not undertaken, but Divina was alert, coherent, gave a logical history, and was sophisticated in the way she expressed herself. She had insight into her current difficulties, and was help-seeking.

In terms of her diagnosis, Divina presents as having an episode of melancholic depression on a background of obsessive-compulsive personality traits. There were no signs of a psychotic illness.

1. *Step 2 Put together a “formulation skeleton” based upon your history*
   1. *Presentation*
      1. Divina is a 17-year-old girl who presents to the emergency department with suicidal thoughts
   2. *Context*
      1. Divina’s brother’s recent seizures
      2. Her recent course of prednisone
   3. *The past* 
      1. Perfectionistic personality traits, tendency to work harder in response to stress, high level of responsibility
      2. Absent father figure
   4. *The future*
      1. Difficulty in establishing identity, exploring self, pursuing own needs
      2. Obsessive-compulsive personality style as a perpetuating factor for depression
      3. Significant strengths
2. *Step 3 “Put it all together”*

Divina is a 17-year-old girl who presented to the emergency department after disclosing suicidal thoughts to her school-teacher. She describes a few months history of depressive symptoms.

Numerous stressors seem to have contributed to her depressive illness. Her brother has recently had a series of seizures, which has been a source of concern to Divina, who is close to her brother. Her mother has had to take time off work, leading to lost income which, due to her overly responsible nature, may have led to Divina feeling pressure to work harder to support her mother and brother.

In a biological sense, Divina’s recent course of prednisone for her asthma may be have predisposed her to developing a depressive illness, especially when combined with other stressors.

Divina describes herself as having a perfectionistic personality style. This may have predisposed her to having a depressive illness, as she has coped with recent stressors by working harder and trying to be more productive, which was difficult to maintain leading to a sense of personal failure. There is a sense that Divina has been unable to meet the high expectations she usually sets for herself. It may also be a perpetuating factor for her illness if she does not develop alternative coping strategies.

Divina’s father was absent for much of her life, and Divina seems to have compensated for this by becoming parentified herself, and has an unusual degree of responsibility for someone her age.

Looking to the future, Divina seems to be facing the challenge of developing an identity for herself outside of her work commitments, and developing friendships and pursuing romantic relationships. Divina has numerous strengths with which to deal with her current difficulties. These include the fact that she is intelligent, is close to her family, and has other family interstate with whom she is close to. Her ingrained sense of responsibility makes it more likely she will comply with follow-up and be compliant with antidepressant medication.

Note: “Parentified” is a term used to describe young people who have taken on the role of a parent and, like Divina, have an unusual degree of responsibility for someone their age.

**Further recommended reading:**

1. Jamison KR. An unquiet mind: A memoir of moods and madness. Picador; 2015***-This is a book written by Professor Jamison, a Professor of Psychiatry at Johns Hopkins University. In it she writes of her own experience of having bipolar disorder, the effects of the illness on her relationships, as well as her self-identity. It is, essentially, Professor Jamison’s own formulation about her lived experience with mental illness. Taking the time to read this book, and thinking about the issues it raises will help you to look at your patients in a more nuanced way and, hence, help with your formulation skills.***

2. Gabbard GO. Long-term psychodynamic psychotherapy: A basic text. American Psychiatric Pub; 2017***­-This is a good introduction into the basics of psychodynamic concepts, which are essential when formulating any patient’s presentation.***

**CHAPTER 6: An approach to after-hours shifts**

***What am I expected to do on an after-hours shift?***

Not many people are particularly enthused about doing after-hours shifts, but they need to be done. They are a good motivator to get one’s training done as quickly as possible.

They are also a vital part of training, as you will have the opportunity to see a range of presentations, practice your skills, and have an opportunity to discuss cases with a consultant.

In general, after-hours shifts are classified as:

* Evening shifts (usually between 1700-2230) during weekdays
* Night shifts (between 2230 and 0830 on weekdays, and between 2030 and 0830 on weekends)
* Day shifts (usually between 0830 and 2030) on weekends

For the major hospitals in our training network (Cumberland Hospital, Westmead Hospital, Blacktown and Mt Druitt Hospitals collectively, and Nepean Hospital) a psychiatry registrar needs to be on-site 24 hours a day.

The main tasks on after-hours are generally the following:

1. **Assessing new patient presentations** 
   1. E.g. patients presenting through ED, new patients being transferred to an acute psychiatric unit, as well as police and ambulance presentations
2. **Assessing patients who are referred by medical teams** 
   1. E.g. referrals from ICU, geriatric wards, cardiology wards, oncology wards etc.
3. **Looking after the medical and psychiatric care of patients admitted to psychiatric units**
   1. E.g. patients with unstable vital signs, eating disorders, chest pain, dyspnoea etc. Depending on your location (e.g. in Westmead Hospital) there may also be an interns or resident covering the ward afterhours as well
4. **Conducting daily reviews**
   1. It is not uncommon for the CL (Consultation Liaison) team to request reviews over a weekend period for patient’s that they have seen on medical wards. This might be to assess a patient’s mental state (particularly for patients who have been highly distressed), facilitate transfer to a psychiatric unit, or monitor for side-effects to psychotropics which might have been recently commenced
   2. An inpatient psychiatrist may have requested a review of a patient on the ward for similar reasons
   3. Patients who are “mentally disordered” under the Mental Health Act also require daily review to see if they still meet the criteria for being a “mentally disordered” person, or whether they should be discharged
5. **Routine tasks**
   1. This includes tasks such as renewing medication charts, charting insulin, checking ECGs etc. for patients in psychiatric wards

This may seem a bit overwhelming, but the essence of what you will be doing is assessing patients by taking a psychiatric history, mental state, assessing for potential harm, and instituting a basic management plan until the usual team for that patient takes over care. The medical aspects of covering after-hours mainly includes basic skills that you were taught as a junior doctor.

***General principles for after-hours shifts***

The following principles are useful to keep in mind during these shifts:

1. *If you need help, then ask*

This is the most important principles. Early on in your training it is expected that you will need to ask for help from the psychiatrist on call. If you are worried about the medical state of a patient, then ask for help from the medical registrar covering the hospital. If you are in a psychiatric hospital with limited medical facilities (e.g. Cumberland Hospital) then the patient may need transfer to the nearest ED for assessment.

1. *Never discharge a patient without discussing this with the psychiatrist on call*

As you gain more experience, you may not need to call the psychiatrist on call for the more “basic tasks” (e.g. doing daily reviews on patients who are stable and in whom there is already a management in place). However, whether you are a basic or more senior trainee, you are expected to call the psychiatrist on call for **any** discharges. You are also required to discuss with a consultant any new admissions, particularly through the ED.

1. *Try to make the psychiatrist on call’s life a bit easier*

As mentioned, it is vital that you call for help from the on-call consultant if you need it. If possible, try to see a few patients (e.g. three patients) and then discuss these patients with the consultant all at once. This minimises the number of calls that the consultant will receive. This will not always be possible (e.g. for police presentations, which you should attend to as quickly as possible, or for aggressive patients that need more urgent transfer to a ward), so do not forger principle one “If you need help, then ask”.

1. *Be careful about the term “medical clearance”*

Emergency doctors, or other medical staff will often refer to a patient as “medically cleared”. What this means is that they have assessed the patient and feel they are medically stable to be managed in a psychiatric ward. It is worth keeping in mind that this medical clearance may have been based upon an assessment by a doctor more junior than you (e.g. an intern who has just started working as a doctor). It is your responsibility to assess for yourself whether the patient is medically stable to be in a psychiatric ward (e.g. reviewing their vital signs, blood tests, whether a physical exam has been performed etc.). Emergency departments are busy places and, at times, things may be missed.

1. *There needs to be a psychiatry registrar in the hospital at all times*

This point is rather self-explanatory. If you are unable to do an after-hours shift then it is wholly your responsibility to make sure that another registrar will cover this shift for you. There will be many disgruntled people if you don’t turn up for a shift (including the psychiatrist on call).

1. *Ensure that adequate handover has been received prior to starting a shift, and that you provide handover to the next registrar*

If you are starting an evening shift during the weekday, it is worth speaking with one of the CL registrars about any patients that need review. It is also worth handing over to the CL team in the morning about any cases that they need to be aware of. For weekend shifts, ensure that you have received handover from the registrar that is ending their shift. It is equally important that you provide handover to the next registrar starting their shift.

***What is Consultation-Liaison Psychiatry?***

Consultation-Liaison Psychiatry refers to psychiatric services that are provided in the general hospital. CL teams provide advice and treatment to inpatients and outpatient referred by physicians and surgeons. Depending upon the hospital (e.g. Westmead Hospital), CL teams will also assess patients with psychiatric presentations in the ED.

As a part of after-hours, you may be asked to review patients on the medical wards who have already been seen by the CL team. You may also do a CL assessment yourself if you are asked to assess a patient on a general medical ward for the first time.

***What do I need to know about the Mental Health Act?***

Psychiatry is somewhat unique, in that psychiatric doctors can keep certain individuals in hospital against their will.

Two reasons why psychiatric doctors are able to do this include:

1. Some mental health patients are unaware that they are having symptoms of a mental illness. For instance, patients with a psychotic illness who have delusional beliefs which seem very real to them may not accept that this is a feature of their illness. This is sometimes referred to as “poor insight”, and, as a result, some of these patients may not have capacity to make decisions about their medical care.
2. Some patients, due to their illness, may pose an immediate risk of harm to themselves and/or others. For instance, a patient with severe depression may have suicidal ideation with current plans to end their life after presenting to hospital due to a suicide attempt. A psychotic patient may also have thoughts of hurting others due to their persecutory beliefs.

There are obvious ethical implications regarding the ability to keep people in hospital against their will. One must always keep in mind the following ethical principles:

1. Is keeping a patient in hospital in their best interests, and are there significant benefits to be gained?
2. Does the risk of keeping a patient in hospital outweigh these benefits? Being in an inpatient ward may be traumatising to some patients, and may lead to a loss of rapport with mental health services.
3. That it is important to consider the patient’s wishes regarding their treatment, and that if a patient prefers treatment in the community then this should be pursued unless there is a convincing reason why they need to be in hospital. Treating patients in the community, if at all possible, may also “free up” beds for patients who require inpatient treatment and for whom community treatment is not at that time possible.

The ability to keep someone in hospital against their will is a significant power that psychiatric doctors have, and in NSW there is legislation to ensure that there are processes and safeguards in place to ensure that:

1. Only those patients who require hospital treatment can be kept in hospital against their will
2. Patients be kept in hospital only if they or others need protection from serious harm
3. Patients are only kept in hospital for the shortest period of time that is consistent with safe and effective care
4. That there are safeguards in place to ensure that patient’s rights are protected, that their close friends and family are a part of their treatment, and that they have the right to appeal the decision to keep them in hospital on an involuntary basis

The legislation that ensures that these safeguards are in place is the “NSW *Mental Health Act 2007”*, which had some provisions updated in 2015.

In NSW, an individual can only be kept against their will if they meet the criteria for being either a “mentally disordered” or a “mentally ill person”, if the patient or others require protection from serious harm, and if they meet the “least restrictive criterion” (discussed below):

* A “mentally ill person” is defined by a set of legal criteria, and to be considered a mentally ill person under the *Mental Health Act* (*MHA*) both of the following must be true:
  1. The person must have a mental illness (as the MHA defines this) which is to say that he or she must exhibit one or more of the following symptoms or signs:
     + Delusions
     + Hallucinations
     + Serious disturbances of thought form
     + Severe disturbances of mood
     + Sustained irrational behaviour which indicates one or more of the symptoms mentioned above
       - From a clinical perspective, a mentally ill person typically will be suffering from an episode of depression, mania, or psychosis
  2. There must be reasonable grounds for believing that care treatment or control is required for the person’s own protection from serious harm or for the protection of others from serious harm. This serious harm can include any harm from likely deterioration.
* A “mentally disordered person” is defined under the *MHA* as:
  1. An individual whose behaviour is so irrational that there are reasonable grounds for deciding that temporary care, treatment or control of this person is necessary to protect them or others from serious *physical* harm
     + A mentally disordered person will most commonly be an individual who is suicidal or aggressive following a social stressor (e.g. relationship breakup), and often have features of a personality disorder.

Note that for mentally disordered people the “serious harms” of concern are only serious physical harms. These will include, for example, harms like deliberate self-harm, overdose or suicide.

For mentally ill people though, the “serious harms” envisaged are not restricted and include all harms as long as they are *serious*. Serious harms to the person him or herself in these cases will include things like:

* + - Serious physical harm (like those listed for mentally disordered people)
    - Serious emotional or psychological harm (e.g. an individual who is seriously distressed by the content of their auditory hallucinations)
    - Serious financial harm (e.g. a manic patient who is spending large amounts of money in an uncharacteristic manner)
    - The serious harms that would be associated with the person being violent or aggressive towards others (e.g. the likely disruption to relationships or consequences imposed by the criminal justice system)
    - Serious harm to personal or family relationships
    - Serious harm due to self-neglect (e.g. a depressed patient who has poor oral intake)
    - Serious harm associated with a loss of opportunities that would be available if not for the mental illness (e.g. loss of educational or job opportunities)
    - Serious harm to a person’s reputation. (This last one is not altogether clear, but probably applies if the harm is indisputably “serious”)

The “least restrictive criterion” is that involuntary treatment must represent the least restrictive kind of care, “that is consistent with safe and effective care, is appropriate, and reasonably available to the person”. In practice, it is this criterion that is most likely to decide whether a person will require an involuntary admission or not. Most people we are asked to see will have features of a mental illness, or will be irrational. Most people we’d even think of involuntarily admitting will “require protection from serious harm or serious physical harm”. The criterion that will make the difference, and the one that you want to clearly document your thinking about is: *“Is involuntary treatment the least restrictive avenue for safe and effective care?”*

For instance, a patient with a borderline personality disorder may have suicidal ideation after a breakup. This does not necessarily mean that this person needs an involuntary admission. For instance, if they are willing to develop a safety plan, stay with relatives for a short period of time, and are amenable to follow-up with mental health services, then this would be a lesser restrictive form of care which might be able to be pursued.

If the decision is made to place a patient under the *Mental Health Act* for involuntary treatment or monitoring, then a series of forms and paperwork must be filled out. It is important to realise that these are legal forms and, as such, should be filled in very carefully. The forms may be reviewed by individuals who are not doctors and should be written in language which is not overly technical. The forms themselves are quite easy to fill out (as they give clear instructions on what needs to be filled out), and it is worth familiarising yourself with these forms early on.

The most important forms to be familiar with include:

1. *A mental health certificate (s 19) (otherwise known as a “schedule 1” or “schedule” form)* 
   1. This form is usually the first step in the process of detaining a person in hospital, although from time to time that first step will have been taken by similar forms filled in by the police, ambulance officers or magistrates (see below). A “schedule” can be filled out by a medical doctor (who does not need to be a psychiatric doctor) or an accredited person (for instance, a nurse who is authorised to write a schedule document). Once filled out, this individual is able to be transported to the nearest declared mental health facility (DMHF) for psychiatric assessment (e.g. the local emergency department or mental health unit), or if they are already in an emergency department or in a DMHF the schedule means they must stay until they are reviewed with a form 1 (see below). If they are “under a schedule” then police or ambulance can assist to transport the patient to such a facility, even against their will. If you feel that police are necessary to transport a patient (e.g. for a potentially aggressive patient) then you should fill in “part 2” of the form, and provide the schedule form to the local police. The individual filling out the form must specify whether the person is a mentally disordered or a mentally ill person based upon their initial assessment.
2. Medical report as to the mental state of a detained person (“form 1”)
   1. After a patient has been scheduled (the first assessment of the patient), they must be assessed by another medical practitioner (which in practice is usually a psychiatry registrar) within 12 hours. This form is filled in if it is thought that the patient needs to be admitted to hospital on an involuntary basis. The assessment for a form 1 must determine, and provide justification for, whether the patient is a:
      1. Mentally disordered person
      2. A mentally ill person, or
      3. Is not a mentally ill or mentally disordered person (in which case they must be discharged)

On the form, it must also be justified why inpatient treatment is necessary and why this is the least restrictive environment in keeping with safe and effective care. A patient can be kept in hospital against their will after a form 1 is completed. When doing the initial form 1 the doctor should tick the “initial examination” box at the start of the form.

* 1. The MHA then specifies that “as soon as possible” after the first form 1 is completed, a second medical report must be done (if the first medical report found the patient to be mentally ill or disordered). In NSW “as soon as possible” is usually interpreted as the next working day. This second form 1 is usually done by a consultant psychiatrist, but it may be done by a registrar if the first medical report (or first “form 1”) is done by a psychiatrist. At this stage, this second medical assessment must determine again, if the patient is:
     1. A mentally disordered person
     2. A mentally ill person, or
     3. Is neither mentally ill or disordered (in which case a third opinion will be needed by another psychiatrist because there is some disagreement about whether there is the presence of a mental illness or disorder)
  2. If the patient is determined to be mentally disordered:
     1. In this case the patient may only be held up to 3 working days (not including weekends or public holidays) and during that period they must be reviewed every 24 hours. They will need to be discharged at the end of this period, or as soon as they are no longer mentally disordered or the least restrictive criterion is no longer met. It is possible to re-schedule a mentally disordered person at the end of the three working days if they remain mentally disordered and if the least restrictive criterion is still met, but this should only happen *extremely rarely*.
  3. If the patient is determined to be mentally ill:
     1. In this case the patient will remain in hospital until they have a mental health inquiry or until they are no longer mentally ill or the least restrictive criterion is no longer met.
  4. In some cases, the first medical report and second medical report will not agree about whether the patient is mentally ill or mentally disordered, in which case the patient is treated as a mentally ill person.

In 2015 the Mental Health Act was amended so that it now important to comment on and consider the patient’s decision-making capacity when deciding whether or not involuntary treatment is needed. Though not a formal criterion, doctors must make “every effort that is reasonably practicable” to “monitor [patients’] capacity to consent” and “to obtain the consent of people with a mental illness or mental disorder”. This means that person who is competently refusing treatment should only be detained under the mental health act in extraordinary circumstances.

When you see a patient whom you are considering detaining involuntarily you should consider whether or not they have decision making capacity relevant to their refusal of treatment and document your impressions on this.

Recall that all adults are assumed to have decision-making capacity, but it can be shown that they do not have it for particular decisions, if, despite best efforts to assist them, they are not able to either:

1. Understand and retain the information relevant to the decision; or
2. Use and weigh that information to come to a decision.

When a patient presents to a mental health unit, it is important from a legal perspective that they are provided the following:

1. A form for the patient informing them of their rights as a patient on a mental health unit (this “statement of rights” form is different for patients who are voluntary and involuntary patients). Patients who are detained in an emergency department and are awaiting transfer to a mental health unit, must be given their statement of rights in the emergency department.
2. A form which allows them to nominate up to two “designated carers” (who may be their guardian, parents, or a person of their choosing) who will be kept up to date about their care and progress in hospital. The individual must also nominate a “principal care provider”, who is the one person who will mainly be involved in the care of the patient (this is usually one of the designated carers).
3. It is good practice for you to summarise in an easy to understand manner what the *Mental Health Act* is, why the patient has been made an involuntary patient, and what their rights are under the *MHA*. This ensures that the patient’s rights are upheld, and may assist in developing a rapport.

The role of the mental health inquiry:

If a patient who is a “mentally ill person” under the *Mental Health Act* is admitted to a psychiatric ward, they will soon be reviewed by a mental health inquiry. This inquiry is overseen by the Mental Health Tribunal (the Tribunal), though usually in these first instances the Tribunal will only consist of a legal member sitting alone.

During this “inquiry”, the legal member, member(s) of the treating team, patient, and, ideally, their designated carer will be present. The goal of this inquiry is to ensure that the patient is mentally ill as defined by the MHA, that they or others need protection from serious harm and that there is not a less restrictive avenue consistent with safe and effective care. If this cannot be established, then the person must be discharged from hospital. The treating team will write a report to the inquiry stating how the patient meets these three criteria and how long they feel the patient needs to be in hospital. At the inquiry the legal member will make an order, if they agree the criteria are met, for a period that they see as appropriate.

Before this order expires, and if the patient is still in hospital, they will need to be presented again to the Tribunal, though this time the legal member will joined by an independent psychiatrist member and a community member (who may be a social worker or psychologist). This Tribunal has the same functions as it did in the inquiry.

Before a hearing, make sure the patient is aware that they will be appearing before the Tribunal, and that they understand its purpose. Also, ensure that their principal care provider has been invited, and that the legal paperwork is in order (schedule documents, form 1s). The Tribunal closely scrutinises the legal paperwork, and will always ask the patient if they received a copy of their statement of rights.

One of your early tasks as a registrar will be to write a report to the inquiry. The following are some useful tips to consider when approaching this task:

* Keep the report succinct, but include all of the relevant information arranged so as to demonstrate that, in your opinion, the patient meets all three criteria needed to be detained. (The Tribunal usually appreciate reports of this type rather than ones which are excessively long and unfocussed)
* Try to include any embarrassing information in the report, so that you don’t need to discuss it in detail during the inquiry:
  + For instance, a manic patient may have presented to hospital because they had taken off all their clothes in a public place. Saying this out loud during a hearing may be hurtful to the patient (either now or when they recover). The best thing to do is to document this in your report and then allude to it during the inquiry e.g. “as my report outlines the patient was somewhat disinhibited prior to presentation…”
* It might be worth having your consultant, or a more senior registrar present for your first few Tribunal hearings until you are comfortable with the process (which won’t take long)
* Don’t argue with your patient during the inquiry, and speak in a way that demonstrates that you are trying to do what is best for the patient (e.g. rather than saying “Michael is aggressive and needs to be in hospital to receive antipsychotics”, try saying “Michael remains somewhat agitated, and we would like to keep him in hospital for a while longer so that he is safe and can receive treatment”)

Your report should cover the following (and, in general, be no more than 2 typed pages):

1. How the patient came to be in hospital
2. Their past psychiatric history (including periods in the past where the person (or others) have suffered serious harm)
3. What features demonstrate that your patient suffers a mentally illness (as defined); in what way they or others require protection from serious harm and what those harms are, and how involuntary treatment represents the least restrictive option for safe and effective care
4. Your impression of the person’s decision-making capacity with respect to their refusal of treatment
5. A brief idea of their current medical treatment, and justification for why you are seeking an order of a particular duration
6. Why the patient needs to be in hospital as opposed to the community (assuming you are not applying for a CTO)

Some other things you should know about the *Mental Health Act*:

1. Police and ambulance have the ability to “Schedule” someone to hospital, using section 22 and section 20 of the MHA respectively. They will come to hospital with a form filled out explaining why an assessment is being requested. Similarly, local magistrates who are seeing a patient in a local court can ask that they have a psychiatric assessment under section 33 of the forensic version of the MHA. In each of these cases, assess the patient as you normally would and seek advice from your consultant about how to proceed.
2. Some patients who are repeatedly non-compliant with antipsychotic medications may need depot medications to ensure their well-being. These patients may be placed on a “community treatment order” which requires them to receive treatment. If they refuse such treatment, they may be “breached”, and police may present them to a local mental health facility for their depot medication (after which they may be discharged or stay admitted to hospital). Applications for community treatment orders can be done either in hospital or the community.
3. Some patients may be seriously unwell and require urgent electroconvulsive therapy. This may also be done on an involuntary basis, and an urgent Tribunal hearing is usually organised to authorise this (and special paperwork needs to be filled out). A common scenario for this is a patient with psychotic depression who has poor oral intake.
4. Involuntary patients who feel they are being wrongly detained in hospital can “appeal” the decision for them to be in hospital directly to the Tribunal. If they make such an appeal, then they must be presented at an appeal hearing as soon as possible so they may outline why they feel they can be discharged safely.

To summarise:

1. Psychiatric doctors have the ability to involuntarily keep patients in a psychiatric unit for observation and treatment. The legal framework which governs this in NSW is the Mental Health Act 2007 (NSW).
2. When involuntarily admitting patients, there is a legal responsibility to consider other less restrictive options (i.e. community treatment) and whether these are appropriate. The benefits and risks of inpatient treatment should also be considered.
3. A patient can only be kept in hospital as an involuntary patient if they meet the legal criteria of being a mentally disordered or mentally ill person, if there is evidence of serious harm on assessment, and if they meet the least restrictive criterion.
4. A “schedule form” can be completed by community doctors (including GPs), inpatient medical staff, other accredited persons, as well as by emergency department doctors. Once completed, this patient can be transported to the nearest declared mental health facility for assessment, against their will if necessary (usually with police escort). A schedule form is also the start of the detention process if the patient is already in hospital. Once a schedule form is filled, a psychiatric assessment must occur within twelve hours. Police, ambulance, and magistrate have similar powers under the MHA.
5. A “form 1” is a psychiatric assessment conducted by doctors (though in rural areas it can be completed by an accredited person). The first form 1 is usually done by a registrar, while the second form 1 is usually done by a psychiatrist. The doctor doing the form 1 must note whether they believe the patient is mentally disordered or mentally ill, outline any evidence of serious harm, and that the least restrictive criterion is met. If the first form 1 finds the patient to not be mentally ill or disordered, they must be discharged.
6. Mentally disordered patients can be kept in hospital for up to 3 working days, and they must be reviewed daily. The patient must be discharged as soon as they no longer meet the criteria for being mentally disordered or the least restrictive criterion.
7. A mentally ill person is kept in hospital until a mental health inquiry is held or until they no longer meet the criteria for being a mentally ill person or the least restrictive criterion.
8. It is important that patients be aware of their rights under the MHA, including the right of appeal.

Case examples:

*Case 1*

*Dr Byrne is a GP working in the community. He sees Anita, a 23-year-old, who comes to see him with her partner Greg. Greg tells Dr Byrne that he has been worried because Anita has been isolating herself.*

*Dr Byrne takes a history and makes the diagnosis of melancholic depression based upon Anita’s symptoms and mental state. Anita tells Dr Byrne that she has a plan to overdose on paracetamol, as she no longer deserves to be alive. Dr Byrne explains to Anita that he feels that she needs a psychiatric assessment, and a possible psychiatric admission. Anita responds by abruptly leaving the practice, and Greg follows her.*

*Dr Byrne subsequently fills in a schedule form, and justifies his opinion that Anita is a mentally ill person under the MHA because of a severe disturbance in mood, and because he is worried she needs protection from suicide. Dr Byrne contacts the local police, provides them with the schedule document, and explains that she needs to be in hospital for assessment. The police arrive at Anita’s home and, although she is unhappy to see them, she agrees to go to hospital.*

*Anita is assessed by the afterhours psychiatry registrar in ED, who notes that she does not have decision-making capacity around the decision to receive treatment and concurs with Dr Byrne that Anita is melancholically depressed, requires inpatient treatment, and that no other less restrictive avenue is really open. He fills in a form 1 justifying his belief that Anne is mentally ill as defined by the MHA, outlines the harms that she needs protection from, and justifies why community treatment is not possible at this stage. He justifies the latter by stating that Anne is not willing to receive help at present due to her depressive cognitions.*

*After the registrar speaks with the on-call consultant, Anita is admitted to an acute inpatient psychiatric unit. She is reviewed the next day by a consultant psychiatrist who fills in the second form 1, and concurs with the previous registrar’s assessment.*

*Within two weeks Anita is still in hospital as an involuntary patient after being started on venlafaxine. She is presented to the Mental Health Inquiry and the treating team request a four-week order, which is granted by the legal member. After a further two weeks Anne’s depressive symptoms begin to resolve, and she is discharged from hospital with a plan for community follow-up.*

Note:

In this example, Anne receives an order of “up to four weeks” during the inquiry, but is discharged prior to this because her condition improves and community based treatment becomes consistent with safe and effective care. Should her four-week order have expired, she would have been reviewed by the three panel Mental Health Tribunal.

***What do I need to know about capacity?***

While assessing capacity is now a requirement of assessing patients under the Mental Health Act, on your afterhours shift, you may be asked by a general doctor on the wards: “Does this patient have capacity?”

On the general wards capacity questions usually arise when there is a question about a patient’s ability to make decisions about their medical care. (In older patients, capacity issues also often arise about accommodation arrangements, but you are unlikely to be faced with those cases after hours).

Common scenarios during after-hours may include:

1. A patient who is requesting discharge from a medical ward, and the medical team are uncertain about the patient’s capacity to make this decision
2. A patient that is refusing treatment which the medical team feels is in their best interest

All adults are presumed to have capacity, but a patient can be said not have capacity if they are unable to do either of the following:

1. Understand and retain the information relevant to a particular decision; or
2. use and weigh that information to come to a decision.

It is important to keep in mind the following about capacity:

1. *Capacity is decision specific:*
   1. This means that a patient may have capacity for one decision, but not another (therefore, statements such as “this patient has no capacity” are senseless; it’s always “this patient lacks the capacity to make decision X”)
2. *Capacity is time specific:*
   1. A patient may have capacity to make a decision on one day, but perhaps not the next day e.g. if they become delirious
3. *There is a “presumption of capacity”:*
   1. This means that all adults are assumed to have the ability to make decisions about their own medical treatment and lifestyle choices
   2. A patient’s capacity should only be questioned if there are concerns that they do not currently have the ability to make a particular decision, and there are concerns that their decision can cause them harm
4. *The role of psychiatry in assessing capacity:*
   1. Medical teams should be able to make an assessment of their patient’s capacity to make a particular decision (e.g. a surgeon should be able to consent someone for surgery)
   2. If a medical team asks for advice about a patient’s capacity, running them through how to do a capacity assessment over the phone may be all that is necessary
   3. Psychiatric illness may interfere with a person’s ability to make decisions, and it is in such cases that a psychiatric assessment can be particularly useful
5. *Efforts should be made to maximise an individual’s ability to make decisions:*
   1. For instance, explaining the risks or benefits of a procedure is necessary for a patient to have capacity. This is a step that is often overlooked. Common sense measures for ensuring capacity are also important. For instance, ensuring that a patient has their hearing aids in place when being consented, and glasses on while reading material about a procedure. Ensuring that the language used to explain the situation is simple enough for the person to understand is also important.
6. *Keep in mind a patient’s values:*
   1. A patient may make a decision that you don’t agree with, which is their right so long as they demonstrate capacity to make that decision

If a patient is judged to not have capacity to make a particular decision about their medical care, then it may be necessary for a person to make decisions for them until they regain capacity.

In NSW the person who can usually make a decision for a person who lacks capacity is called the “person responsible” and there is a hierarchy to determine who is the person responsible:

1. An appointed guardian (including an enduring guardian) who has the authorisation to make medical decisions for the patient
2. The patient’s spouse or de facto (including same sex relationships)
3. An unpaid carer of the patient (a paid carer benefit from the government is not grounds for exclusion)
4. A relative or friend who has a close relationship with the patient

*Note:*

*The individuals higher up on the hierarchy trump those below (meaning that an enduring guardian’s decision trumps those for all other individuals lower on the hierarchy).*

If no person responsible is available, and an urgent medical decision needs to be made for the patient’s physical wellbeing, then the patient may be treated under the common law doctrine of necessity if they lack capacity. This doctrine (also called the emergency power) allows a doctor to provide treatment to a patient without the patient’s consent if all of the following apply:

The patient lacks decision-making capacity around that decision.

Without treatment, the patient is likely to come to serious harm.

The situation is urgent, so that no other formal decision maker can be identified or appointed.

There is no reason to think that the patient would have refused the treatment had they been competent.

Note that a person responsible cannot consent to something that a person is refusing (even if they lack capacity).

An enduring guardian is an individual who has been chosen by a patient to be their decision maker for medical and dental treatment. A patient’s guardian may can be granted authority to consent to medical treatment or accommodation arrangements, even if this is not in keeping with the patient’s wishes, so long as this is in the patient’s best interests.

A patient themselves can choose their guardian while they have capacity, and this is usually done through a solicitor. If a patient lacks capacity, then the New South Wales Civil and Administrative Tribunal (NCAT) can hold a guardianship hearing and appoint a guardian if necessary (either someone close to the patient or a public guardian). This can be done on an urgent basis if needed.

Cases examples:

*Case 1*

*John is the on-call psychiatry registrar in Westmead Hospital over the weekend. He is called by the on call medical registrar about a patient. The patient, Athena, is a 72-year-old woman who was admitted to hospital following a fall. Athena sustained no major orthopaedic injury, and was soon due for transfer to a rehab ward. The medical registrar is worried that Athena has developed sepsis, likely relating to a UTI, and feels that the patient should be scheduled under the MHA so that Athena can receive IV antibiotics and fluids.*

*John assesses Athena, who seems clearly delirious, as there has been an abrupt change in her mental state. She is now disorientated, clouded in her consciousness, and experiencing visual hallucinations. She is refusing to let staff near her to insert a cannula, as she feels they will poison her. The medical registrar explains to Athena that without IV fluids and antibiotics her condition will deteriorate, and she may die. Athena does not seem to understand this information.*

*John explains to the medical registrar that Athena is experiencing psychotic symptoms in the context of a delirium. He explains that the Mental Health Act cannot be used to provide legal warrant for unconsented medical (as opposed to psychiatric) treatment. He speaks with the on-call psychiatrist and suggests that Athena can be treated under the doctrine of necessity, without her consent, as she lacks capacity and treatment is needed urgently to protect her physical health. He suggests that a guardianship order be sought as soon as possible, and that the patient’s family be made aware of Athena’s condition.*

*Case 2*

*Mark is a 48-year-old man who is admitted under an oncology team. He had presented to hospital with a 6-month history of lethargy, weight loss, and increasing shortness of breath. He decided to go ED with his wife after having a pre-syncopal episode associated with haemoptysis.*

*The oncology team ordered a CT scan which showed a mass in the right upper lobe of Mark’s lungs. A fine needle aspirate confirms a diagnosis of squamous cell lung cancer. Mark is shaken by this news, but not altogether surprised as he has been smoking heavily since he was 16.*

*The cardiothoracic team are consulted. After a PET scan is done they inform Mark that he has stage 3A cancer which is locally invasive, but can be treated with surgical resection and chemotherapy. They explain the nature of the lobectomy procedure, including a forty percent chance of 5-year survival with combination treatment. They explain that without active treatment his cancer will slowly progress, that he will develop symptoms due to enlargement of the tumour, and that he has virtually no chance of 5-year survival. The risks of the procedure, including a twenty percent mortality rate, haemorrhage, and worsening respiratory compromise are discussed. The oncology team provides similar information about the proposed chemotherapy.*

*Mark informs the team that he would not like to proceed with surgery and chemotherapy, but would prefer symptomatic relief. He is amenable to having radiotherapy if needed, to manage symptoms due to enlargement of his tumour. He tells his oncologist that he is worried about the twenty percent chance of not surviving the surgical procedure, as he would like to spend his remaining time with his family. He also does not want to experience the side-effects associated with chemotherapy. Mark discusses his reasons for refusing surgery with his wife, who understands and supports his decision.*

*Mark’s oncologist and surgeon urge him to reconsider, and give him additional time to think his decision through. After further consideration Mark’s decision remains unchanged. The consultant oncologist feels that Mark understands the information that has been presented to him, and that he has an appreciation of the risks of refusing active treatment. Ongoing follow-up is organised, with a plan for referral to a palliative care team if this is needed.*

Note: In this case, both medical teams did not agree with Mark’s decision, but recognised that he had the capacity to refuse active treatment for his lung cancer, and respected his right to make a plan in keeping with his own priorities.

***How do I present a case to the on-call consultant?***

Being able to present a patient to the on-call consultant is an important skill to have during after-hours shifts.

When you call a consultant over the phone, you will often be presenting an assessment for a patient you have seen in the emergency department. You may also need to present patients you see on medical wards or patients who are admitted to psychiatric units. No matter the situation, the way you will present a patient will generally be the same.

Consultants will understand early on in your training that you are learning to develop this skill. They will often give you some constructive feedback over the phone (unlikely though at 3am).

As mentioned previously, try to accumulate a few patients to discuss, if possible, so that you don’t need to call the consultant very frequently.

The following are a series of headings that can be used when presenting a patient:

1. **Introduction** (introduce yourself at the beginning of a shift, ask if this is a convenient time to talk)
2. **The patients name and other identifying details** (e.g. patient’s age, where they live, who they live with, and any relevant past psychiatric history)
3. **Details of referral** (e.g. who referred the patient to you, why, and what was the outcome of their assessment)
4. **The medical state of the patient** (e.g. vitals, bloods, neuroimaging)
5. **The findings of your assessment** (your history, mental state, relevant collateral history, and impression of the patient)
   1. Some consultants will expect a detailed formulation of the patient’s presentation. That said, most consultants will not want to hear a full formulation at 3am in the morning.
   2. After presenting the history and mental state, it is useful to tell your consultant your impression of the patient which, at minimum, covers:
      1. What factors lead to the patient’s presentation
      2. What the mostly likely diagnosis is, and relevant differentials
      3. An assessment of any serious harms identified during your assessment
6. **Suggested management plan** (including setting of treatment, if the patient needs to be under the MHA, biological treatments, psychological strategies which may be useful, and what follow-up is needed if the patient is being discharged)

You might want to carry around a card or piece of paper with these headings on them so you can refer to them when starting out. You might also want to rearrange the headings to suit your own style.

The following is an example of how to present a case to a hypothetical consultant (Dr Chawla):

*Introduction*

“Good morning Dr Chawla. My name is Andrei and I’m the afterhours registrar at Westmead Hospital today. I was wondering if you had time for me to discuss an ED presentation?”

*The patient’s name and other identifying details*

“This patient’s name is Peter Cole. Peter is a 19-year-old man who lives in Merrylands with his parents and older brother. He has no known past psychiatric history”

*Details of referral*

“Peter was referred to me by one of the ED registrars. The ED doctor told me that Peter’s parents brought him to hospital because he had divulged suicidal thoughts to his older brother. Peter had not been attending his university lectures recently, and has become quite withdrawn. The ED doctors felt that the patient may be experiencing a depressive episode and so referred him for assessment”

*The medical state of the patient*

“The ED registrar has medically cleared the patient. Peter’s vital signs are all within normal limits, a physical exam was unremarkable, and no neurological deficits identified. His routine bloods, including renal and hepatic function, are within normal limits and he is euthyroid. Neuroimaging has not been performed as the ED doctors did not feel that this was urgently needed. An ECG was also performed which showed the patient to be in sinus rhythm and his QTc interval is within normal range”

*The findings of your assessment*

**History**

*Demographics*

“As I mentioned, Peter lives with his parents and older brother, who is 23 years old. He is in his first year of university and is studying pharmacy. He told me that his main supports are his parents, and that he is particularly close to his older brother Jason. He also has a circle of friends from high school with whom he is close to”

*History of presenting complaint and systems review*

“Peter told me that he has not been feeling like his usual self since starting university about six months ago.

The transition to university life has been particularly difficult for him, as his close friends had not chosen to go to university and he has felt isolated.

Peter says that he is generally a quiet person, and that forming new friends has been difficult.

In addition to this stress, he also reports that his mother was diagnosed with breast cancer late last year. She has responded well to radiotherapy and chemotherapy, and is thought to be in remission. Peter found that it was difficult to cope with university studies whilst also worrying about his mother, who became very sick with chemotherapy.

Over the past few months Peter describes his mood as being very low, and that this has been worse over the past few weeks.

He has been feeling very tired, and has found it difficult to get up in the morning to attend to his lectures. He generally feels worse in the morning.

Although a generally quiet person, Peter told me that he usually likes to play sport and watch movies with his friends from high school. He has found that he doesn’t want to see his friends as much anymore, and that recently nothing has made him laugh or smile.

His sleep has been very poor. He has found that he tends to go to sleep easily, but that he tends to wake up around 4am and finds it very difficult to get back to sleep. He normally sleeps well.

Peter had been trying to hide how he has been feeling from his parents, given that his mother has been recovering from her own illness. That said, they became very worried when they noticed that Peter hasn’t been eating well, and that he has lost about 6kg of weight this year.

Peter told me that he has been frustrated with what has happened to him, and that he can’t see his condition ever improving.

This morning he told his brother Jason that he has been having suicidal thoughts almost constantly for the past few days. When his brother asked more about this, Peter told him that he has had thoughts of wanting to hang himself and is worried about being left alone for fear that he might hurt himself.

Peter denied prominent anxiety symptoms or panic attacks. Although a quiet person, there were no pervasive features of social anxiety.

Peter denied hearing voices, having persecutory or referential ideas, and also denied excessive concerns about money, or concerns that his body is not working properly. He has guilt about his poor performance at university, but no delusions of guilt.

*Past Medial History*

“Peter reports being physically health. He has never been hospitalised for physical health concerns and has never had surgery. There is no history of recent head injury or seizure disorder”

*Past Psychiatric History*

“Peter has never been diagnosed with depression or any other mental illness in the past. He has never seen a psychiatrist or psychologist previously, and has never attempted to end his life. He is not aware of any past manic episodes”

*Drug and Alcohol History*

“Peter reports that he has never smoked cigarettes, and that he has never used any forms of illicit drugs.

Over the past month, he has been using significant amounts of alcohol in an attempt to improve his mood. During the week, he has been going to the uni bar on average three times and has been having up to three shots of spirits, as well as approximately 3 schooners of beer. This has also meant that he is missing classes the day after. He acknowledges that this is a problem, but couldn’t think of another way to make himself feel better. He denies craving alcohol during the week and denies withdrawal symptoms”

*Forensic History*

“Peter has never had any problems with the police, and he denies any forensic history”

*Social History*

“As mentioned, Peter has started studying pharmacy this year and has a good circle of friends from high school.

When he is well, he enjoys playing sports, and spends time with his family.

In addition to his immediate family, he has a significant extended family in Sydney, and numerous cousins with whom he is close to.

Peter described himself to me as a quiet person who enjoys the company of others, and that he is generally a hard worker.

He does not currently have a job and is financially supported by his parents”

*Family History*

“Peter reports that his father has a mental illness of some type, but is not sure of the details”

*Personal History*

“Given the context of an ED presentation and prominent depressive symptoms, I did not take an extensive personal history.

Peter did tell me that he was born and grew up in Sydney, and that he was fortunate to have an extended family around him growing up. His parents were both brought up in England, married there, and moved to Sydney in their early twenties.

Peter went to primary school and high school locally, and performed well in his year 12 exams. There was no history of conduct related problems. His father is a pharmacist and so it was his goal to enter this profession and work alongside his father. He reports a close relationship to both parents, and did not report any significant difficulties or trauma growing up”

**Mental State Exam**

“On mental state exam Peter is a 19-year-old male of Caucasian background. He was wearing casual clothes which were loose fitting. He was initially reluctant to speak with me, but was more cooperative as a rapport was developed. He had prominent psychomotor retardation. His speech was soft, his responses short, and he had little tonal variation. He reported his mood as very low, and his affect was flat with no reactivity. He reported ongoing suicidal thoughts with persisting thoughts of wanting to hang himself, and feared that he might do this if left alone. His thought form was logical, although there was poverty of content. No delusional themes, mood congruent or otherwise, were identified. There were themes of hopelessness, with a belief that his situation would never improve. He denied perceptual disturbances, and did not seem to be responding to internal stimuli. Peter was alert, able to give a coherent narrative, although his responses were quite slow. He accepted that he is experiencing a depressive illness, but is adamant that he does not want to be in hospital or have follow-up as it “won’t make a difference”.

**Collateral History**

“I spoke with Peter’s father, Alex. Alex corroborated much of Peter’s history. He reports that Peter has found the transition to university life difficult, especially spending less time with his close friends. He reports that over the last few months that Peter has been increasingly isolated, has been losing weight, and not engaging with his family.

Alex reports that one of his sisters has a diagnosis of bipolar disorder. She was diagnosed in her early twenties after a manic episode and has been on lithium since then. He confirms that Peter has never been manic.

After learning about Peter’s suicidal thoughts, he feels that his son needs to be admitted to hospital, as he is worried about Peter hurting himself”

**Impression**

“Peter gives a history of low mood and depressive symptoms over a six-month period, which have been steadily worsening. This has been in the context of the recent illness of his mother, difficulties with transitioning to university life, and a pattern of binge drinking. There is a family history of bipolar disorder.

I think that the most likely diagnosis at present is that of a severe melancholic depression as well as co-morbid alcohol abuse. There appears to be a potential serious harm of suicide in Peter’s case, given his current suicidal ideation with plans”

**Suggested management plan**

“I believe that Peter requires an inpatient admission as he is mentally ill, and is at risk of serious harm of suicide due to his illness. I think that an involuntary admission under the Mental Health Act is warranted, and that community based treatment is not the least restrictive environment consistent with safe care at present. This is also the view of Peter’s family, and I also feel that his depressive illness compromises his capacity to make decisions about his treatment at present.

Peter also has a family history of bipolar disorder, so monitoring his response to antidepressants as an inpatient is likely the safest option.

I have provided Peter and his family with psychoeducation about depression, and I recommend starting him on an SSRI such as escitalopram 10mg and monitoring his response”.

It is at this stage that the on-call consultant may seek some clarification about some features of the patient’s presentation and give their own recommendations about treatment. This process is an invaluable learning opportunity.

**References for this chapter:**

1. Mental Health Act 2007 Guide Book. 5th ed: NSW Institute of Psychiatry; 2016.***­-This is a useful guide for developing a detailed understanding of the NSW Mental Health Act 2007 and is available online.***

2. Fact Sheets, Guardianship Division: NSW Civil and Administrative Tribunal (NCAT); [Available from: http://www.ncat.nsw.gov.au/Pages/guardianship/publications\_resources/gd\_fact\_sheets.aspx.**-*NCAT have a variety of simple and easy to read fact-sheets about topics such as substitute decision making, guardianship, and financial management.***

**CHAPTER 7: Managing psychiatric disorders**

***What do I need to consider when devising a management plan for a patient?***

When thinking about the management of a patient, it is important to have a framework in mind. This ensures that your plan is thorough and that you are not forgetting anything important.

The following is an example of such a framework:

1. **Identifying any serious harms**
   1. What are the potential serious harms to the patient or others involved?
   2. Should the patient be an inpatient or managed in the community?
   3. Should the patient be a voluntary or involuntary patient (if an inpatient)?
2. **Alliance**
   1. What is the best way to form an alliance with this patient?
   2. How will you engage with the patient’s family and close supports?
   3. Provide psychoeducation about the patient’s illness and treatment
3. **Diagnosis**
   1. What is the diagnosis for this patient?
   2. Consider collateral history from the patient’s family, community team, past notes
   3. Is there any role for neuroimaging or other physical investigations?
4. **Biological treatments**
   1. Consider the use of psychotropic medications or ECT
5. **Psychological treatments**
   1. Consider what psychological therapies or approaches would be useful for this patient
6. **Other professionals**
   1. Consider the role of members from the multidisciplinary team (including psychologists, occupational therapists, social workers, dieticians etc.)
   2. Think about how you will liaise with the patient’s general practitioner in the community
   3. Ensure that you have involved your supervising consultant in the development of your plan (remembering that no patient should be discharged from hospital without discussing this with a consultant)
7. **Bridge to the community**
   1. What are the criteria for discharging the patient?
   2. How will you involve the community mental health team?
   3. How can you ensure that your patient takes their medications (with community treatment orders as a last recourse)?
   4. Are there any other services (e.g. non-government organisations) that can help your patient in the community?

***What do I need to know about psychotherapy?***

In a very simple sense, psychotherapy can be considered as “talking therapy”. There are a variety of different types of formal psychotherapy. Each of these has its merits, and it is often the patient’s presenting problem and own preference which determines which form of therapy is appropriate.

It is also important to keep in mind that formal psychotherapies are not always accessible in the community. This is one reason why it is very important to develop basic competency in a variety of therapeutic techniques during your training.

Perhaps the most important concept to keep in mind is to realise that every interaction which you have with a patient, no matter how long or short, is potentially therapeutic. Being calm, kind, and attempting to work with an individual in a collaborative way is one of the most important things that we can do as clinicians.

The following is a brief overview of some of the major types of formal psychotherapy (also refer to the discussion on “psychological models” in the chapter on formulation):

It is worth noting that it is important to practice psychotherapy with adequate supervision from a senior colleague while you are learning (e.g. for your long psychodynamic psychotherapy case). Even experienced psychotherapists have supervision with other peers regarding their patients.

1. *Psychodynamic psychotherapy*
   1. Who is it for?
      1. Beneficial to individuals with a wide variety of diagnoses, including:
         1. Personality disorders
         2. Recurrent depression and dysthymia
         3. Anxiety disorders
         4. Eating disorders
         5. Substance abuse disorders
         6. Medically unexplained symptoms (e.g. somatoform disorders)
         7. This form of therapy may also be useful for individuals who do not have a formal psychiatric diagnosis, but who have identified a pattern of unhelpful behaviour that is chronic and have caused them significant distress or dysfunction in their relationships with others
      2. This form of therapy may be particularly useful for patients who can reflect upon past experiences, and who have an ability to think in a more abstract way
   2. Structure of therapy:
      1. Therapy may occur once a week, with the therapy being up to one year or longer (shorter term models are also available)
      2. “Psychoanalytic psychotherapy” can be thought of as a more intense version of dynamic therapy, which may, for instance, occur three times a week for several years (this type of therapy requires extensive training on the part of the therapist)
   3. Basic premise:
      1. That unconscious mental forces outside an individual’s awareness have a significant impact upon their behaviour
      2. That unconscious ways of relating towards other people can cause an individual significant difficulty in navigating relationships
      3. That human beings have “in built” ways of relating to those around them, and that these templates often have their origin in attachments formed in early life. Developmental trauma can adversely impact upon these templates, causing difficulties in establishing relationships throughout an individual’s life
   4. Processes that occur during therapy:
      1. There is a guided exploration of how a patient’s past, especially childhood experiences, informs their present, and how unhelpful patterns of behaviour have evolved during the course of their life
      2. A patient’s emotional reactions towards their therapist are used as a source of understanding how the patient unconsciously relates to others (i.e. an understanding of the patient’s transference)
      3. The therapist focusses on their emotional reactions towards the patient to help to identify how the patient unconsciously impacts upon others (i.e. an understanding of the therapist’s countertransference)
      4. The therapy itself may allow individuals to develop secure, reciprocal relationships with others, which often reflects the trust that develops between a person and their therapist. This is a psychotherapeutic concept that applies not only to therapy, but to all clinical encounters (e.g. in community clinics or busy acute wards)
      5. There is a focus on the patient’s attitude towards therapy, and an attempt to understand any avoidance of therapy e.g. missed appointments (i.e. an understanding of resistance)
      6. Other unconscious forces, such as dreams, can also give insight into a patient’s mental functioning
2. *Cognitive behavioural therapy (CBT)*
   1. Who is it for?
      1. CBT has been modified into various forms, and has been developed to treat numerous psychiatric conditions, including:
         1. Mood and anxiety disorders
         2. Psychotic disorders with symptoms not fully responding to antipsychotics
         3. Eating disorders
      2. This form of therapy may be particularly useful for patients who appreciate structure, who have a focus more on the “here and now”, and who can commit to practicing techniques outside of sessions
   2. Structure of therapy:
      1. CBT is usually briefer and more structured that dynamic therapies, with sessions usually once a week, typically for between 6 to 20 sessions
   3. Basic premise:
      1. CBT’s basic premise is that the way we think (cognitions) affects the way we feel, which affects the way we act (behaviours)
      2. It is interesting to note that from a psychodynamic perspective, emotions are generally thought to occur prior to thoughts
   4. Processes that occur during therapy:
      1. *Psychoeducation to the patient about their illness*
         1. Consider a CBT therapist working with a patient, Rachael, a 20-year-old patient with panic disorder. At the outset of therapy, the therapist may explain the nature of anxiety, the fight or flight response, as well as the unhelpful role of avoidance.
      2. *Orientation to the cognitive-behavioural model*
         1. The therapist may discuss with Rachael what CBT is, and the CBT model of panic disorder. The therapist may also outline the need to practice strategies outside of therapy.
      3. *Uncovering unhelpful thinking patterns which can drive a patient’s illness (e.g. “negative automatic thoughts” in depression or “catastrophic thoughts” in anxiety disorders)*
         1. Rachael may talk with her therapist about her fear of public transport, saying that “I won’t be able to escape if I have a panic attack on a train, it will be embarrassing, and I might die”.
      4. *Challenging unhelpful or maladaptive thoughts* 
         1. The therapist may work with Rachael in developing other ways of viewing her fearful cognition:
            1. That medical causes for their panic symptoms have been excluded, making it virtually impossible that a 20-year-old person will die because of a panic attack
            2. It may be acknowledged that having a panic attack on a train might be embarrassing, but the therapist may challenge Rachael’s assumption that other passengers on the train will be judging her for having an attack, and that they are more likely to offer her help. The therapist might also explore with Rachael the “worst case scenario” e.g. whether it matters if people on the train are judging her.
      5. *Teach the patient relaxation strategies*
         1. For instance, Rachael may learn about deep breathing and practice being able to slow down her respiratory rate.
      6. *Using behavioural methods to encourage structured activity, and to allow an individual to gradually face feared situations*
         1. Rachael’s therapist may develop a hierarchy with Rachael of her feared situations and grade them from least anxiety provoking to most anxiety provoking to help overcome her agoraphobia resulting from her fear of panic attacks. For instance, the least anxiety provoking situation may be for Rachael to go outside and walk down her street. After she has mastered this, with the help of relaxation strategies, she may move onto going to the local shops in a car with her friend. The last step in the hierarchy may be for Rachael to go on a train trip on her own. This process is called systematic desensitisation.
      7. *The use of homework exercises* 
         1. Rachael might develop a diary of her anxious thoughts and learn, with guidance from her therapist, to eventually challenge these on her own.
3. *Dialectical behavioural therapy (DBT)* 
   1. Who is it for?
      1. DBT was primarily developed for patients with borderline personality disorder (BPD) who experience rapid shifts in mood, relationship difficulties, and recurrent self-harm and suicidal thoughts
      2. It has also been used for other disorders in which there is an element of “self-injury”, such as eating disorders and addiction disorders
   2. Structure of therapy:
      1. Therapy occurs in the following contexts:
         1. In individual sessions with a DBT therapist
         2. In group sessions with other patients where DBT skills are taught
            1. Skills training covers a series of modules:

Mindfulness skills

Interpersonal effectiveness skills

Emotional regulation skills

Distress tolerance skills

* + - 1. In a full DBT setup there is over the phone counselling which a patient can use during times of distress (e.g. when there is an urge to self-harm), and be guided to use DBT skills which they have previously learnt
      2. DBT practitioners themselves are supposed to have regular supervision to ensure they are supported by peers and to gain new perspectives about certain patients which may be therapeutically useful
    1. In an overarching way, there are 3 stages to DBT:
       1. Stage 1
          1. Aims to reduce life-threatening behaviours (e.g. self-harm, overdoses), therapy interfering behaviours (e.g. missing sessions, self-harm behaviours immediately prior to sessions, boundary issues), and issues reducing quality of life (e.g. substance abuse, relationship difficulties). DBT skills groups introduce skills which can be practiced.
       2. Stage 2
          1. Focuses on post-traumatic symptoms and trauma processing
       3. Stage 3
          1. Focuses on developing and implementing future goals
  1. Basic premise:
     1. The biosocial theory of borderline personality disorder, which underlies DBT, proposes that the disorder is due to an ingrained difficulty in managing emotions, in combination with an invalidating environment early in life. Thus, validation is an important part of therapy.
     2. The term “dialectic” relates to the Buddhist underpinnings of DBT. Patients with a borderline personality style often have “all or nothing” or “black or white” thinking, which leads to relationship instability. The dialectic is related to the Buddhist principle of the “middle path”, and patients are taught that two opposing ideas can both be true at the same time.
     3. DBT in some ways is a complex therapy, which requires much training to be an “expert at”. That said, some of the skills are also quite simple, and it is worth familiarising yourself with them so you can integrate them into your daily practice. The best way to do this is to participate in groups as an observer, and to observe individual sessions with patients if possible.
  2. Processes that occur during therapy:
     1. There is a cognitive behavioural basis to DBT:
        1. Patients are taught to connect thoughts and feelings which precede acts such as self-harm and are encouraged to reflect upon the consequences of certain behaviours. In DBT this is called a “chain analysis”
     2. Individual modules:
        1. Mindfulness skills
           1. Mindfulness is an overarching theme of DBT and is the core module of skills training
           2. Patients with BPD often experience chronic sadness which reflects past trauma. The premise of mindfulness is to focus a patient on the “here and now” (e.g. by exercising their senses and focussing attention) with the recognition that distress is like a wave, which peaks but then fades
        2. Interpersonal effectiveness skills
           1. Patients with BPD often have difficulties with intense and volatile relationships. This module teaches skills such as “assert, negotiate, and compromise” to promote more healthy ways of relating
        3. Emotional regulation skills
           1. Patients with BPD also often experience difficulties regulating their emotions (affective instability). Patients learn skills to be aware of their emotions, and how to problem solve difficult situations as opposed to being emotionally reactive
        4. Distress tolerance skills
           1. Patients with BPD often cope with difficult emotions by self-harming. Patients often find that this reduces their levels of distress. Patients are taught alternative skills to use during these “crisis moments”

***“Biological treatments” in psychiatry***

Psychiatric therapies are often split into psychological therapies and biological therapies. From a practical perspective, this can be a useful distinction. It is worth keeping in mind, however, that there is a complex interaction between brain and mind, and that “psychological therapies” ultimately impact upon brain circuits as well.

The following discussion of biological treatments is a general overview, and there is not much focus on medication doses, as these can vary from patient to patient. For instance, elderly patients, those with medical co-morbidities (e.g. Parkinson’s Disease), or those with renal or hepatic impairment often require lower doses (at least initially). Also, keep in mind that many psychotropic medications can lower the seizure threshold.

When starting as a registrar, be guided by your consultant in terms of which medications to commence and how to adjust their doses.

***What do I need to know about antidepressants?***

1. What disorders are they for?
   1. Main indications:
      1. Unipolar depression (including psychotic depression)
      2. Bipolar depression (with caution)
      3. Anxiety disorders (particularly SSRIs or SNRIs)
   2. They may also be used to treat:
      1. Bulimia nervosa
      2. Regulation of behaviour in individuals with brain injury (e.g. traumatic brain injuries or in certain types of dementia)
      3. Neuropathic pain
2. How do they work?
   1. Depression:
      1. In a very simplistic sense, depression is thought to be a consequence of reduced levels of the monoamine neurotransmitters (serotonin, noradrenaline, and dopamine). Antidepressants increase levels of these neurotransmitters, which leads to alterations in intracellular protein expression (e.g. BDNF-brain derived neurotrophic factor) and changes in the function of certain brain circuits
   2. Anxiety:
      1. Antidepressants with serotonergic actions are thought to reduce the output of the amygdala, which is responsible for the excessive fear response seen in anxiety disorders
3. What are the different classes, examples of them, and their side-effects?
   1. Selective serotonin reuptake inhibitors (SSRIs)
      1. SSRIs act by inhibiting the serotonin transporter (which pumps serotonin back into a neuron presynaptically), thereby increasing the amount of serotonin available at a synapse for downstream neurotransmission
      2. General side-effects shared by the SSRIs:
         1. Transient side-effects (lasting a few days)
            1. These include headache, nausea, as well a paradoxical increase in anxiety (what is called an “activating effect”), and insomnia
         2. Persisting side-effects
            1. These include sexual side-effects (difficulty with maintaining erections, anorgasmia)
         3. Dangerous side-effects
            1. Potential for serotonin syndrome
            2. Medication induced hyponatraemia
            3. The potential to cause excessive bleeding (rare, due to inhibition of platelets)
         4. Discontinuation syndrome (worse with agents that have a short half-life)
            1. Abrupt cessation of these drugs can cause rebound anxiety, insomnia, nightmares, dizziness, flu-like symptoms, as well as “electric shock sensations” which may last a few days
      3. Some individual medications:
         1. Citalopram and escitalopram
            1. These are generally well tolerated with fewer drug interactions, but both can prolong the QTc interval
         2. Paroxetine
            1. Thought to have more anxiolytic properties than other SSRIs, but causes a significant discontinuation syndrome, and has more sexual and anticholinergic side-effects. More drug interactions than other SSRIs
         3. Fluoxetine
            1. Very long half-life, and hence the SSRI least likely to cause a discontinuation syndrome. First line in child and adolescent patients
   2. Serotonin and noradrenaline reuptake inhibitors (SNRIs)
      1. SNRIs act in a similar manner to SSRIs, but also inhibit the reuptake of noradrenaline presynaptically
      2. In general, SNRIs have similar side-effects to the SSRIs
      3. Some individual medications:
         1. Venlafaxine
            1. Available in slow-release form, with once daily dosing
            2. Acts as an SSRI at doses of up to 150mg, and acts more like an SNRI at doses above this
            3. Highest licenced dose is 225mg
            4. Can cause hypertension due to noradrenergic effects, and has a significant discontinuation syndrome
         2. Duloxetine
            1. May be a preferred option for depressed patients who also have issues with chronic pain
   3. Noradrenaline and serotonin specific antidepressants (NaSSAs)
      1. Mirtazapine
         1. Mirtazapine has a complex pharmacological profile, but is thought, in part, to act by blocking alpha 2 receptors which increases serotonin and noradrenaline levels
         2. Unlike SSRIs, mirtazapine tends to have more of a sedating effect, and can also increase appetite. Although these may be considered as side-effects, they can be useful in patients experiencing insomnia along with their depressive symptoms
         3. May be particularly useful in cancer or elderly patients, who often have reduced appetites and difficulties sleeping. Mirtazapine may also have mild anti-emetic properties
   4. Tricyclic antidepressants (TCAs)
      1. TCAs have a wide variety of pharmacological actions which result in increased levels of monoamine neurotransmitters (e.g. by blocking the serotonin and noradrenaline transporter, and by blocking 5HT2C serotonin receptors)
      2. TCAs also have other pharmacological properties which lead to specific side-effects, including:
         1. Blockade of histamine receptors
            1. Leading to sedation and weight gain
         2. Blockade of cholinergic receptors
            1. Anticholinergic side-effects

Dry mouth

Blurry vision

Constipation

Urinary retention

* + - 1. Blockade of adrenergic receptors
         1. Anti-adrenergic side-effects

Postural hypotension and dizziness

* + - 1. Sodium channel blockade
         1. With the potential for causing cardiac arrhythmias and conduction disturbances
    1. Individual medications:
       1. Nortriptyline
          1. May be more tolerable in terms of side-effects compared with other tricyclics
       2. Clomipramine
          1. Has more of a serotonergic effect than other TCAs and can be useful in anxiety disorders such as OCD
  1. Monoamine oxidase inhibitors (MAOIs)
     1. These antidepressants act by irreversibly inhibiting MAO-A and MAO-B enzymes, both of which work by breaking down the monoamine neurotransmitters
     2. These agents are thought to be very effective agents (especially for atypical depressions), but they are seldom used due to the so called “tyramine reaction”:
        1. Dietary tyramine is usually broken down by the MAO-A enzyme. In patients taking MAOIs, tyramine accumulates and can displace noradrenaline into the circulation causing a hypertensive crisis and, possibly, a subarachnoid haemorrhage
        2. Patients on these medications must take a strict low tyramine diet, which requires a motivated and insightful patient

1. What else is good to know?
   1. It is usually taught that antidepressants take up to 4 weeks to work, but they may act within 2 weeks for many patients
   2. In terms of efficacy, it is generally thought that
      1. MAOIs>effective than TCAs>effective than SNRIs>more effective than SSRIs (as the “more effective” agents have more mechanisms to increase monoamine levels)
      2. This is in keeping with the experience of many clinicians, but there is no “solid evidence” to support this
   3. It is important to warn patients about potential discontinuation symptoms, or to prescribe medications with longer half-lives for less compliant patients (e.g. fluoxetine)
   4. Antidepressants may increase suicidal thoughts in the initial stages of treatment due to their “activating effects”, and it is important that patients be monitored closely when an antidepressant is started
   5. It is important to warn patients about sexual side-effects, as they may be very distressed if these occur and they are unsure why. Mirtazapine and agomelatine (a newer antidepressant which does not impact on serotonin levels directly) have less of a tendency to cause these effects
   6. In elderly patients, in particular, antidepressants can cause hyponatraemia. It is important to monitor such patient’s electrolytes weekly for two weeks after starting an antidepressant
   7. SSRIs, SNRIs, and NaSSAs are generally first line agents due to tolerability and a lower risk of death in overdose. TCAs, due to their cardiotoxic effects, are more dangerous in overdose
   8. In general, patients should not be on two antidepressants at a time (although mirtazapine is sometimes used with an SSRI or SNRI) due to the risk of serotonin syndrome. When switching agents, there is usually an antidepressant free interval before commencing the new agent to reduce the risk of serotonin syndrome. There are tables which can help guide you when switching antidepressants

***What do I need to know about antipsychotics?***

1. What disorders are they for?
   1. Main indications:
      1. Psychotic disorders (e.g. brief psychotic episodes, schizophrenia)
   2. They can also be used for:
      1. Patients with psychosis and mood symptoms (e.g. in psychotic depression or acutely in manic patients with psychosis)
      2. Patients with bipolar disorder as mood stabilisers (although classic mood stabilisers are preferred)
      3. To augment antidepressants in treatment resistant depression
      4. For patients who have behavioural and psychological symptoms of dementia
      5. For patients with personality disorders with extreme fluctuations in mood (although the evidence base for this is very limited)
2. How do they work?
   1. Dopamine hypothesis
      1. In a simplistic sense, the positive symptoms of psychosis are thought to be due to an excess of dopamine in the mesolimbic pathway of the brain
      2. All antipsychotics are thought to act by blocking the dopamine 2 (D2) receptor in this pathway
      3. Unfortunately, some antipsychotics are non-selective and tend to block D2 receptors in other brain regions causing side-effects:
         1. Blockade in the nigrostriatal pathway causes movement side-effects called extrapyramidal side-effects (EPSEs)
         2. Blockade in the tuberoinfundibular pathway causes unregulated prolactin release (which can cause irregular menstruation, infertility, sexual side-effects, gynaecomastia, galactorrhoea, and osteoporosis in the long-term)
         3. Blockade of mesocortical pathways can theoretically cause worsening of negative symptoms (the “neuroleptic deficit syndrome”)
   2. Other actions
      1. Many antipsychotics have activity at numerous other receptors, which can explain their additional useful properties, as well as their side-effects
      2. For instance, some antipsychotics have activity which increases the release of monoamines, theoretically explaining their antidepressant effects (e.g. blockade of 5HT2c or 5HT7 receptors, amongst others)
3. What are the different classes, examples of them, and their side-effects?
   * 1. There are two main classes of antipsychotics:
        1. Typical antipsychotics (older “first generation” antipsychotics which are more likely to cause EPSEs)
           1. These antipsychotics bind very “tightly” to D2 receptors in the nigrostriatal pathway, which explains their propensity to cause more movement side-effects. They tend to also bind tightly with dopamine receptors in other pathways, leading to high prolactin levels and, potentially, worsening negative symptoms
        2. Atypical antipsychotics (newer “second generation” antipsychotics which are less likely to cause EPSEs)
           1. These antipsychotics bling “less tightly” to D2 receptors in the nigrostriatal pathway, which explains their propensity to cause less movement side-effects
           2. Unfortunately, for reasons that are not fully understood, some of these agents can cause insulin resistance and development of the metabolic syndrome
     2. Main side-effect receptor profile
        1. The following are the main receptor profiles which lead to antipsychotic side-effects (some of which are similar to TCA side-effects):
           1. Anticholinergic side-effects
           2. Antiadrenergic side-effects
           3. Antihistaminergic side-effects
           4. Antidopaminergic side-effects

EPSEs, neuroleptic malignant syndrome

* + - * 1. Unknown receptors

Insulin resistance, metabolic syndrome

* + 1. Extrapyramidal side-effects (EPSEs)
       1. These refer to potential movement side-effects which result from the use of antipsychotics, and include:
          1. Parkinsonism

Tremor, rigidity, bradykinesia, postural instability

Tremor often bilateral (may help to distinguish from Parkinson’s Disease)

* + - * 1. Akathisia

A feeling of inner restlessness which may manifest as psychomotor agitation or aggression

Beta blockers and benzodiazepines may be helpful

* + - * 1. Acute dystonia

Sudden and prolonged spasms of muscle groups which can be very uncomfortable (e.g. oculogyric dystonia, trismus)

Laryngeal dystonia can lead to stridor and respiratory compromise (rare, but worth keeping in mind at all times)

Benztropine 2mg IM can be very effective

* + - * 1. Tardive dyskinesia

Chronic, and often irreversible dyskinetic movements involving oral and facial muscles (lip-smacking, rabbiting of the mouth, tongue protrusion)

Clozapine itself is associated with few EPSEs, and can be used to treat tardive dyskinesia

* + 1. Specific agents
       1. Typical antipsychotics
          1. All of which have varying degrees of anticholinergic, antiadrenergic, antihistaminergic, and antidopaminergic properties
          2. Can be classified as:

Those that are very sedating

E.g. Chlorpromazine

Those that are very anticholinergic

E.g. Pericyazine

Those that have prominent EPSEs (the “high potency” typical agents) but are less sedating

E.g. Haloperidol, zuclopenthixol, flupenthixol, fluphenazine

* + - 1. Atypical antipsychotics
         1. The “pines”

These include quetiapine, and olanzapine

These agents tend to be quite sedating, and have a greater propensity to cause the metabolic syndrome. Due to their sedative properties, they are often used in acute inpatient settings

These agents are often used to augment antidepressants in treatment resistant depression

Asenapine is unique in that it is more “metabolically friendly”, whilst still sedating. Its use is limited by the fact that it is a sublingual wafer, which must be held under the tongue for at least a minute. This makes it less desirable for patients with compliance issues

* + - * 1. The “dones”

These include risperidone, paliperidone, lurasidone, and ziprasidone

These agents are more likely than other atypicals to cause EPSEs, but are generally well tolerated and have less of a tendency to cause metabolic side-effects

Risperidone and paliperidone can both cause significant elevation of prolactin levels, which may be symptomatic. Both agents are commonly used in depot form for patients who are poorly compliant with oral antipsychotics

Ziprasidone and lurasidone must be taken with meals or their absorption is dramatically reduced, which means that patients must be disciplined in terms of meal times

* + - * 1. Aripiprazole

This is a “partial dopamine agonist”, which means that it reduces dopamine output in high output pathways, and increases output in low output pathways

Generally well tolerated, with a good metabolic profile

Tends to cause few EPSEs, but akathisia can be an issue, particularly initially

May cause impulse control disorders at higher doses (e.g. new onset gambling)

* + - 1. Clozapine
         1. This is the most “atypical” of the antipsychotics, as it has the least propensity to cause EPSEs. Given its special qualities, it is worth considering separately
         2. Indications:

Treatment resistant schizophrenia where two antipsychotics of adequate dose and duration have been ineffective

30% of these patients will respond to clozapine within 4 weeks and 60% within 6months

* + - * 1. Side-effects:

Common side-effects

Weight gain, sedation, hypersalivation, tachycardia, anticholinergic side-effects

Clozapine has a high potential to cause insulin resistance/the metabolic syndrome

Nocturnal enuresis

Not particularly common, but can be very distressing to patients

Potentially dangerous side-effects:

Severe constipation and toxic megacolon due to profound anticholinergic side-effects

Seizures (clozapine reduces the seizure threshold more so than other antipsychotics)

Potentially lethal side-effects

Neutropaenia (2%)/agranulocytosis (0.8%)

Myocarditis (1%) and cardiomyopathy

Workup for starting clozapine, includes:

FBC

Routine biochemistry

Baseline CRP and high-sensitivity troponin (HST)

Blood group/cross match (for clozapine register’s records)

ECG

Ideally baseline echocardiogram to establish systolic function (can be useful if clozapine induced cardiomyopathy is later suspected)

* + - * 1. Monitoring:

Due to the potential for haematological complications, clozapine requires close monitoring of FBCs and registration with an Australia wide clozapine register

Monitoring:

Closely monitor vital signs after initially commencing clozapine

Weekly FBCs for 18 weeks, then monthly to monitor for blood dyscrasias

Observe for infective symptoms, and check CRP/ HST (high sensitivity troponins) for the first 4 weeks to monitor for myocarditis

If a patient misses more than 2 days of clozapine, it must be ceased and retitrated

* + - * 1. Tips:

Protocols exist for the commencement of clozapine and for monitoring of clozapine related side-effects, and you should familiarise yourself with these

Clozapine clinics are setup by an area coordinator, who helps ensures that patients have regular haematological monitoring, have scripts for their clozapine, and have regular clinical reviews. Patients on clozapine will have mandated lifelong follow-up

All FBC results are stored with the national clozapine register, as well as documentation about any serious side-effects a patient has had in the past

There are 3 “alert levels” for clozapine based upon the patient’s white blood cells and neutrophils:

Green range=continue clozapine and monitor monthly

Amber range=monitor FBC every 2 weeks until blood counts normalise

Red range=stop clozapine permanently

Smoking induces the enzyme which metabolises clozapine, which means that if a patient reduces their level of smoking that their clozapine level might rise. Such patients may need their dose adjusted

Unlike other antipsychotics, clozapine may take months to work once a reasonable dose is achieved, so there is a need to be patient

Plasma monitoring is available for clozapine once it has been titrated to a “target dose”

1. What else is good to know?
   1. Atypical antipsychotics are sometimes known as serotonin and dopamine receptor antagonists (SDAs). This is because all atypical antipsychotics block serotonin 5HT2A receptors, which results in a “boost of dopamine” in the nigrostriatal pathway and fewer EPSEs
   2. Clozapine is a somewhat curious medication. Despite having increased efficacy compared with other antipsychotics, it has the lowest propensity to block dopamine receptors, making its mechanism of action something of a mystery
   3. Despite its many side-effects, clozapine reduces mortality in schizophrenia due to a reduction in suicide. The increased clinician contact necessitated by being on clozapine can also have a positive impact on these patients
   4. Antipsychotics with anticholinergic properties are less likely to cause EPSEs (i.e. the “pines”)
   5. The best treatment for EPSEs is usually to reduce the dose of antipsychotic, and to place the patient on an atypical antipsychotic if they are not already on one
   6. Quetiapine and clozapine have the least propensity to cause EPSEs, and are preferred in patients who have psychosis in the context of Parkinson’s Disease
   7. As a general rule, patients should not be on two antipsychotics at one time. There is little evidence base to support this practice, and it results in increased side-effects. It is sometimes reasonable to augment clozapine with another antipsychotic (e.g. aripiprazole or amisulpiride)

***What do I need to know about mood stabilisers?***

1. What is a mood stabiliser?
   1. There is some confusion about the use of the term “mood stabiliser”:
      1. A very stringent definition would be:
         1. An agent which has efficacy in treating all acute phases of bipolar disorder (acute mania and depression), as well as preventing these episodes
         2. Only lithium meets these stringent criteria
      2. A more practical definition would be:
         1. Medications used in bipolar disorder which prevent future episodes of mood disturbance (either mania or depression)
2. How do they work?
   1. This is not exactly known, but one simple theory is:
      1. Bipolar disorder is due to overactive neuronal circuits, and mood stabilisers have various properties which inhibit and regulate this unpredictable release of neurotransmitters. It is therefore not surprising that several anticonvulsants have mood stabilising properties
3. What are the main mood stabilising medications?
   1. Lithium
      1. Thought to be the “gold standard” mood stabiliser, as it meets the most stringent definition of what constitutes a mood stabiliser
      2. Workup prior to starting lithium:
         1. Electrolytes (including calcium, magnesium, and phosphate) and renal function
         2. Thyroid function tests
         3. ECG
      3. When prescribing lithium:
         1. Once daily dosing is usually ideal (improves compliance and is less likely to cause renal damage)
         2. Check lithium level after 5 days of initiation (trough level), and aim for a level of:
            1. 0.8-1 for acute mania
            2. 0.6-0.8 for maintenance treatment (a level of 0.4-0.6 may be sufficient for some patients)
         3. Once a lithium level is stable, it must be checked, along with TFTs and EUCs, every 3 months
      4. Side-effects:
         1. Common
            1. Nausea, vomiting, diarrhoea, weight gain, fine tremor, polyuria, polydipsia, metallic taste in the mouth, acne, psoriasis
         2. Potentially serious:
            1. Endocrine

Hypothyroidism:

Readily treatable with thyroxine replacement

Hyperthyroidism (rarer)

Hyperparathyroidism

* + - * 1. Renal dysfunction

Over the long-term treatment (usually decades), lithium can cause a reduction in glomerular filtration

* + - * 1. Cardiac conduction issues

Lithium can slow cardiac conduction and should be used very cautiously in anyone with a heart-block

* + - 1. Lithium toxicity
         1. Lithium has a narrow therapeutic window (i.e. there is a narrow window between a therapeutic dose and toxic dose)
         2. More common in patients who do not have adequate hydration
         3. Lithium toxicity:

Levels 0.6-1.0:

May have toxic effects in the elderly (in whom a level of 0.4-0.6 may be adequate)

Level between 1.2-1.5:

Coarse tremor, worsening GI side-effects, polyuria, ataxia

Levels between 1.5-2:

Seizures

Levels above 2 (may need dialysis):

Coma, acute renal failure

* + - * 1. ACE Inhibitors/angiotensin receptor blockers, NSAIDs, and thiazide diuretics increase lithium levels
  1. Sodium valproate
     1. Effective in the acute treatment of mania and mixed episodes, with evidence of prophylaxis
     2. Well tolerated, although can cause GI side-effects, tremor, and weight gain
     3. May cause derangement of liver function, pancreatitis, as well as blood dycrasias (reduced white cell and platelet counts) and polycystic ovarian syndrome
     4. Does not require as strict monitoring of levels as lithium, owing to wider therapeutic window
     5. Levels do not equate with efficacy, and are better used to confirm toxicity or compliance
  2. Carbamazepine
     1. An uncommonly used mood stabiliser, but has the advantage of not causing weight gain
     2. Like valproate, can cause derangement of liver function
     3. Not preferred in the elderly due to multiple drug-interactions (reduces the efficacy of many other medications)
  3. Lamotrigine
     1. Lamotrigine is useful in the treatment and prevention of bipolar depression, but has less of an effect on manic episodes
     2. Generally well tolerated, with minimal weight gain
     3. 1 in 1000 risk of Stevens Johnson syndrome:
        1. In this disorder patients develop a rash which can destroy tissue, cause serious bacterial infection, and disfigurement
        2. Very slow titration of lamotrigine towards its target dose minimises this risk, and patients must monitor for new rashes and stop lamotrigine if they develop one (although 10% of patients develop a benign rash)
        3. Sodium valproate can cause greatly elevated lamotrigine levels and, if used together, lamotrigine must be titrated very slowly

1. What else is good to know?
   1. Lithium should be considered the gold standard mood stabiliser, and has special properties including a specific anti-suicidal effect (separate from its effects as a mood stabiliser), as well as neurotrophic properties
   2. Lithium should ideally only be used in patients who are going to be compliant with its use. Poor compliance while on lithium may have a direct destabilising effect on patients with bipolar disorder
   3. All of the above mood stabilisers have teratogenic properties, especially valproate and carbamazepine, and young women with bipolar disorder need to be educated about this
   4. Young women with bipolar disorder can be reassured that having children is possible whilst on psychotropic medication, but that this needs to be carefully planned
   5. Antipsychotics (especially atypicals) are often considered as mood stabilisers, but they are more effective in treating acute episodes of mania or depression in bipolar disorder than they are in preventing them
   6. Antidepressants tend to be “mood destabilisers” in bipolar disorder, and should only be used for short periods of time if needed. They may cause more mood instability, and cause a “switch” into mania. The SSRIs are less likely to have these effects
   7. Evidence suggests that certain antipsychotics, as well as mood stabilisers, are more effective than antidepressants in bipolar depression

***What do I need to know about electroconvulsive therapy (ECT)?***

1. What is ECT?
   1. An effective treatment used for:
      1. Severe depression
         1. Especially if the patient is suffering from an episode of psychotic depression, is highly suicidal, or is at physical risk due to poor oral intake
         2. ECT has the advantage of working more quickly than antidepressant medications
      2. Secondary indications:
         1. Mania with severe agitation
         2. Psychotic episodes associated with schizophrenia
            1. Particularly in patients who are treatment resistant even to clozapine
         3. Neuroleptic malignant syndrome
2. What workup does the patient need prior to ECT?
   1. The patient requires consent prior to ECT (either voluntary or through the Mental Health Review Tribunal)
   2. Usual baseline investigations:
      1. Routine bloods
      2. Chest X Ray
      3. ECG
      4. CT brain (this is usually performed to ensure that there are no intracranial masses or indications of raised intracranial pressure)
   3. An anaesthetic consult is needed to ensure that it is safe for the patient to receive a general anaesthetic
   4. In general, there is no absolute contraindication to ECT, as it is a potentially life-saving treatment
      1. Raised intracranial pressure is the closest exception to this, as there is a risk of intracranial herniation or death if ECT is used in these cases
      2. Pregnancy and epilepsy are not contraindications
      3. The anaesthetic doctors will make an assessment as to whether the patient is physically healthy enough to have repeated exposure to general anaesthetics
3. What are the different types of ECT?
   1. Different types of ECT are based upon:
      1. The locations of the two electrodes that deliver the ECT stimulus:
         1. Bi temporal
            1. The centre of both electrodes are placed in a position overlying the temporal bones (the centre of the electrode is at a point 4cm above the midpoint of the outer canthus of the eye and tragus of the ear)
         2. Right unilateral
            1. One electrode is over the right temporal bone (as above), while the centre of the second electrode is placed just to the right of a point where a line drawn from the middle of the skull intersects with a line drawn between the two external acoustic meatuses)
      2. The nature of the electrical simulation:
         1. ECT machines use alternating currents that produce a stimulus in the form of a series of bidirectional square pulses
         2. These pulses may be:
            1. Brief pulse, or
            2. Ultra-brief pulse
      3. Putting these together yields the following main types of ECT:
         1. Bilateral ECT (which uses brief pulse)
            1. Used for patients with severe depression who require rapid improvement of symptoms
            2. More efficacious, but worse memory deficits
         2. Right unilateral ECT
            1. Using brief or ultrabrief pulse
            2. These forms of ECT are used in patients with severe depression in whom a rapid improvement is not urgently needed
            3. These forms are less efficacious than bilateral ECT, but had fewer cognitive deficits (especially the ultrabrief form)
4. What happens during the procedure?
   1. The procedure is quick (all the steps below usually take 15 minutes or less in total), and usually takes place in a recovery suite of surgical theatres, or in a dedicated ECT suite
   2. Steps:
      1. The patient is nil by mouth overnight (to reduce the risk of aspiration)
      2. The anaesthetic doctor will insert a cannula into the patient and their vital signs, and ECG rhythm strip, are monitored throughout the procedure. At the same time, the psychiatrist and registrar will adjust controls on the ECT machine to select the appropriate parameters and dose
      3. EEG recording electrodes (the same “sticky dots” used to obtain an ECG tracing) are place on the patient (over both mastoid processes and one inch over the centre of both pupils) to monitor their brain waves (a “grounding electrode” is also placed over the right clavicle)
      4. The patient is administered an IV anaesthetic agent (e.g. propofol) as well as muscle relaxant (suxamethonium), and the patient’s muscles will fasciculate as the muscle cells are depolarised
      5. The anaesthetic doctor will apply a bite block in the patient’s mouth (so that their teeth are not damaged when their masseter muscles contract), and supplement their oxygen levels using a bag and mask
      6. Once the fasciculations are complete, and once the anaesthetic doctor has indicated it is safe to do so, an electrical stimulus is applied to the brain using two hand-held ECT electrodes (usually bilateral or right unilateral placements) by the psychiatry registrar with the consultant usually supervising and assisting
      7. During the stimulus, the patient’s jaws will clench and once the stimulus is delivered (usually over a few seconds) the EEG recording is observed to see whether an adequate seizure was elicited, or if a repeat stimulation is needed (usually no more than two are done in a session)
      8. The patient is observed in a recovery bay to ensure that they regain consciousness and can support their own airway
5. What are the side-effects?
   1. Transient side-effects:
      1. Headache, jaw pain, temporary disorientation after ECT
   2. Cognitive side-effects:
      1. Post-ictal delirium
         1. An episode of delirium that occurs after an ECT session (more likely with bilateral ECT)
      2. Anterograde memory dysfunction
         1. Difficulty forming new memories which lasts up to 4 weeks after ECT is ceased
      3. Retrograde memory dysfunction
         1. Memory difficulty for events that occurred in the 3-6 months prior to ECT treatment
6. What else is good to know?
   1. ECT is dosed using a set of pre-determined protocols, which are usually conveniently placed over the ECT machine
   2. The first session of ECT is a “titration session”, which is used to determine the patient’s seizure threshold, which then guides their subsequent dosage
   3. If seizure quality declines, then the dose of ECT may be increased
   4. Certain medications (especially benzodiazepines and anticonvulsants) can reduce seizure quality, and they may need to be withheld or have their doses reduced prior to ECT. Lithium can increase the risk of post-ictal delirium, and may also need to be withheld prior to ECT
   5. Modern day ECT is “modified” using muscle relaxants (typically suxamethonium) to avoid the patient having serious injury when a seizure is induced

***Do not give the ECT stimulus until the muscle fasciculations have ceased and anaesthetist gives the ok to proceed, as this will run the risk of the patient having a motor seizure and injuring themselves!***

***What are some important psychiatric emergencies that I need to know about?***

Given our frequent use of psychotropic medication, it is important to be aware of medication related side-effects which are potentially life-threatening.

These include:

1. Neuroleptic malignant syndrome:
   1. A potentially fatal syndrome caused by dopamine blockade with resulting sympathetic overactivity
      1. Aetiology
         1. Antipsychotic (neuroleptic) medications:
            1. High potency typical antipsychotics especially
         2. Anti-emetics:
            1. Metoclopramide
            2. Prochlorperazine
            3. Domperidone
         3. In Parkinson’s Disease
            1. The withdrawal of levodopa can provoke NMS
         4. Risk factors:
            1. Dehydration
            2. Rapid dose escalation
            3. Depots
            4. Underlying brain disease (e.g. dementia, neurological disorders, alcohol related brain injury)
            5. Prior history of NMS
            6. Lithium
      2. Clinical features
         1. **F**ever
         2. **A**utonomic instability
         3. **R**igidity
         4. **M**ental state changes (delirium)
      3. Investigations
         1. High levels of CK (due to rigidity)
         2. Leukocytosis
         3. Deranged LFTs
      4. Treatment
         1. Stop antipsychotics and other causative agents
         2. Seek the advice of your on-call consultant
         3. Speak to the on-call toxicologist, and the patient may need treatment in a high dependency or intensive care setting
         4. IV fluids to reduce the risk of rhabdomyolysis related acute kidney injury
         5. Benzodiazepines (to reduce rigidity and manage agitation)
         6. Specialist treatments:
            1. Bromocriptine (dopamine agonist) or dantrolene (muscle relaxant)
         7. ECT itself can be a treatment for NMS
      5. Tips
         1. Be judicious in your prescribing of antipsychotics:
            1. Consider the use of an atypical agent as first-line
            2. Start low, go slow
            3. Start depot antipsychotics only after a patient tolerates an oral course of the same antipsychotic
            4. Minimise the use of high potency antipsychotics (e.g. IM haloperidol) to manage agitation on acute wards
            5. Avoid antipsychotic polypharmacy
2. Serotonin syndrome:
   1. A potentially fatal syndrome caused by overactivity of serotonergic pathways in the brain
      1. Aetiology
         1. Usually occurs in the context of a deliberate overdose, but may occur in the context of unintentional drug interactions
         2. Psychiatric medications:
            1. Antidepressants (especially SSRIs and SNRIs)
            2. Lithium
         3. Other medications:
            1. Tramadol
            2. St John’s Wart
         4. Illicit drugs:
            1. LSD
            2. MDMA
            3. Amphetamines
      2. Clinical features
         1. **F**ever
         2. **A**utonomic instability
         3. **R**eally myoclonic
         4. **M**ental state changes (delirium)
      3. Treatment
         1. Stop antidepressants and other causative agents
         2. Seek the advice of your on-call consultant
         3. Speak to the on-call toxicologist, and the patient may need treatment in a high dependency setting
         4. IV fluids to reduce the risk of rhabdomyolysis related acute kidney injury
         5. Benzodiazepines can be useful for agitation and muscular rigidity/myoclonus
      4. Tips
         1. Always look at a patient’s full list of medications prior to commencing them on an antidepressant to avoid unintentionally inducing a serotonin syndrome (tramadol is a common one to look out for)
         2. Cyproheptadine is a serotonin antagonist that can be used in serotonin syndrome, but this will depend upon advice from a toxicologist
         3. NMS tends to have a slow onset and progression, whereas serotonin syndrome usually has a rapid onset and progression
         4. Patients with NMS will be “bradykinetic” (due to severe rigidity), whilst patients with serotonin syndrome will he “hyperkinetic” (due to myoclonus)

In addition to medication related psychiatric emergencies, you should always keep in mind the following emergencies which you may encounter during your afterhours shifts:

1. Eating disorders
   1. As mentioned previously, eating disorders have the highest rates of mortality of any psychiatric disorder, particularly anorexia nervosa. This reflects the potentially lethal medical consequences that are a result of restricted eating and purging behaviours
   2. Thus, the care of patients with eating disorders requires us to exercise our skills as medical doctors, as we well as our specialist training in mental health
   3. You will, at one point or another, be required to assess a patient with anorexia who has presented to the emergency department. As with any other patient, you will aim to identify any serious harms to the patient, with a focus on assessing the medical state of the patient, as an anorexic patient with serious physical decline is a medical emergency
   4. Patients with eating disorders are particularly vulnerable to:
      1. Dangerous electrolyte disturbances:
         1. Low potassium and magnesium levels can predispose to torsades de pointes (a form of arrhythmia which manifests as polymorphic ventricular tachycardia due to prolongation of the QTc interval)
         2. Hyponatremia, if severe and rapid in onset, can lead to confusion and seizures
      2. Refeeding syndrome:
         1. Rapid refeeding in anorexic patients can lead to a sharp rise in insulin levels with shifting of phosphate, magnesium, and potassium into the intracellular compartment (deficits of these three electrolytes is thought to be vital to the pathogenesis of the disorder)
         2. This can lead to cardiac failure (due to fluid retention), hypoglycaemia or hyperglycaemia, Wernicke’s encephalopathy (due to reduced thiamine levels), renal failure due to rhabdomyolysis, and respiratory compromise
      3. Cardiac complications:
         1. This is the major cause of mortality:
            1. Ongoing starvation can reduce cardiac muscle mass and predispose an individual to decompensated heart failure
            2. Patient’s with anorexia often present as bradycardic and may develop significant postural hypotension
            3. Risk of arrhythmias as mentioned above
      4. Haematological disturbances:
         1. Prolonged starvation can lead to blood dycrasias, including neutropenia , anaemia, and thrombocytopenia
   5. Be familiar with the physiological derangements which warrant an inpatient psychiatric admission, which you should be alert to when examining an adult patient with anorexia in ED (RANZCP CPG 2014):
      1. BMI between 12-14
      2. BP between 80-90mmHg systolic
      3. Postural drop in BP >10mmHg systolic, but less than 20mmHg
      4. Rapid weight loss (more than 1kg per week for several weeks)
      5. Hypokalaemia (between 3.0-3.5)
      6. Sodium between 125-130
      7. Hypothermia (T 35-35.5 C)
      8. Neutrophil count 1.0-1.5
         1. An “inpatient psychiatric admission” would involve an admission to a psychiatric unit which has expertise in managing patients with eating disorders
         2. More severe disturbances e.g. severe hypokalaemia, bradycardia less than a heartrate of 40, low magnesium or phosphate levels, renal impairment, prolonged QTc, or haemodynamic changes may warrant an urgent admission to a medical ward
   6. A patient with an eating disorder, even if admitted to a mental health ward, will have a medical management plan in place, including a plan for refeeding guided by a dietitian
      1. There will also be medical help on hand during afterhours (e.g. an afterhours RMO or medical registrar)
      2. It is still your responsibility as the psychiatry registrar on call to take an active interest in the physical health of these patients admitted to mental health wards (e.g. monitoring their recent blood tests, including electrolytes, checking their QTc interval on the ECG, and checking their vital signs)
   7. Take home message for eating disorders:
      1. Anorexic patients have a high rate of medical complications
      2. It is your job on afterhours to:
         1. Liaise with ED staff, other specialists, and your consultant to decide whether a patient with anorexia requires an inpatient admission (either to a psychiatric or medical ward)
         2. To monitor the physical health of patients with anorexia, and seek help if you think a patient is at risk of physical deterioration
2. Delirium
   1. As a part of your afterhours shifts you will be asked to assess patients in medical wards who have new onset psychiatric symptoms (e.g. delusions or hallucinations)
   2. A substantial portion of these patients will end up having an episode of delirium, which is suggested by:
      1. New onset psychiatric symptoms in a patient who is medically ill
      2. Clouding of consciousness
      3. Fluctuations in their mental state (e.g. settled at some times, and quite agitated or psychotic at others, particularly at night)
   3. Medical teams may have formed the view that the patient is a “mental health patient”, as they may have psychiatric symptoms
   4. This can be dangerous as delirium (otherwise known as an acute encephalopathy) is the equivalent of “acute brain failure”, just as the kidney can suffer from “acute renal failure”, and the liver from “acute hepatic failure”:
      1. Prolonged delirium is associated with worse medical outcomes, as well as cumulative cognitive deficits which worsen the longer a patient is delirious (particularly for older patients)
      2. It is, therefore, an acute medical emergency
   5. Your role on afterhours will be to:
      1. Explain to medical and nursing staff why you think delirium is the main diagnosis
      2. Shift the focus towards treating the cause of the delirium e.g. urinary tract infection, constipation, alcohol withdrawal, polypharmacy etc.
      3. Suggest common sense forms of management for a confused patient e.g. nursing them in a separate room, having a nursing special if the patient is highly agitated, encouraging family visits, and ensuring the patient has access to glasses/hearing aids
      4. In a minority of cases, medications may be necessary to manage a patient’s behavioural symptoms, including psychotic symptoms from the delirium:
         1. E.g. starting with risperidone 0.25mg BD in an elderly person
         2. It should be noted that there is no good quality evidence for the use of antipsychotics in delirium, but there is evidence that they may be harmful in certain population groups (Agar et al, 2017)
3. Alcohol withdrawal
   1. Patients with substance misuse problems are at risk of developing withdrawal symptoms when admitted to medical or psychiatric wards
   2. It is important to be aware of how to recognise and treat alcohol withdrawal, because:
      1. Alcohol is a commonly abused substance
      2. Alcohol withdrawal can be associated with significant patient discomfort, the risk of withdrawal seizures, and delirium
   3. Alcohol withdrawal is one component of the syndrome of alcohol dependence:
      1. The alcohol dependent patient may:
         1. Crave alcohol
         2. Drink alcohol with a limited ability to control their consumption
         3. Require more alcohol over time to have the same intoxicating effect (i.e. develop tolerance to alcohol over time)
         4. Stick to drinking only certain kinds of drinks e.g. sticking to spirits or beer (referred to as narrowing of the drinking repertoire)
         5. Develop withdrawal symptoms upon stopping drinking (e.g. while in hospital where alcohol is not permitted)
            1. Patients may start drinking first thing in the morning to avoid withdrawal symptoms
         6. Alcohol becomes a major part of the patient’s life (referred to as “salience”), and its use causes the patient dysfunction (e.g. difficulties with job commitments or relationship strain)
   4. Features of simple alcohol withdrawal (“shakes and sweats”):
      1. These somatic features of withdrawal usually occur within 12 hours, peak within 48 hours, and may last for a few days up to 2 weeks:
         1. Anxiety
         2. Diaphoresis
         3. Dehydration
         4. Tachycardia
         5. Tremor
         6. Insomnia
      2. Withdrawal seizures may occur as early as within 12 hours of the patient’s last drink
   5. Management of simple withdrawal:
      1. Explanation and reassurance to the patient that their uncomfortable symptoms will be attended to, whilst remaining non-judgemental (i.e. avoiding attitudes such as “the patient did this to themselves” as these are in no way productive)
      2. Developing a simple set of relaxation measures the patient can use to manage their anxiety (e.g. talking to a member of nursing staff, speaking with family, listening to music)
      3. Utilising benzodiazepines to manage the symptoms of withdrawal as well as prevent withdrawal seizures:
         1. There are many ways to dose benzodiazepines, and diazepam is usually the agent of choice. The fixed dose reduction regimen is best for non-specialist inpatient units (Maudsley Guidelines):
            1. For moderate alcohol dependence (patients who drink roughly 15 standard drinks per day):

Diazepam 10 mg QID

* + - * 1. The aim is to treat withdrawal, and not to over sedate the patient
        2. If the patient requires more benzodiazepines, then they may need an inpatient drug and alcohol admission
        3. Patients with significantly deranged liver function or cirrhosis may become excessively sedated with diazepam, and treatment with oxazepam or lorazepam may be indicated, which should be done in a specialist unit or under guidance from a specialist drug and alcohol doctor
    1. Symptom scales, such as the alcohol withdrawal scale, can indicate the severity of a patient’s withdrawal symptoms to nursing staff and help guide dosing of benzodiazepines
    2. Parenteral thiamine is necessary to reduce the risk of Wernicke’s encephalopathy:
       1. E.g. Thiamine 300mg IM for 3 days, then switching to thiamine 300mg daily
       2. An IM dose is useful as patient’s GI tracts may not absorb thiamine initially due to alcohol related damage
       3. Give parenteral thiamine before a glucose load to avoid precipitating Wernicke’s
    3. Simple measures to reduce discomfort from withdrawal e.g. fluid intake, paracetamol for pain (depending on liver function), metoclopramide for nausea, and loperamide for diarrhoea
  1. More severe withdrawal:
     1. More severe withdrawal may manifest as “delirium tremens” with the following features:
        1. Exaggerated features of a simple withdrawal
        2. Clouding of consciousness and confusion
        3. Psychotic symptoms (e.g. persecutory delusions)
        4. Visual hallucinations (Lilliputian hallucinations of small people or animals characteristically)
        5. Autonomic instability
        6. High risk of seizures
        7. Risk of renal failure and arrhythmias
     2. Such patients should be in a high dependency unit or intensive care unit and require IV thiamine and other b vitamin replacements, as well as IV diazepam
  2. If you feel a patient is at risk of alcohol withdrawal or has features of withdrawals, seek guidance from the on-call consultant or on call drug and alcohol physician

1. Opioid withdrawal
   1. Patients who are dependent on recreational opioids (e.g. heroin) or prescription opioids (e.g. oxycodone) may develop a withdrawal reaction including:
      1. Excessive lacrimation
      2. Rhinorrhoea
      3. Agitation
      4. Diaphoresis
      5. Piloerection (“goose bumps”)
      6. Shivering
      7. Tachycardia
      8. Yawning
      9. Dilated pupils
   2. Specialist advice should be sought for managing such withdrawals

***Management of the aggressive patient***

One of the most common psychiatric emergencies in acute inpatient wards is that of the aggressive patient. Aggression in inpatient units is usually managed by a specialised team who are on call should the need arise. Emergency department staff are also well trained to manage aggression.

During your training, however, you may be required to manage an aggressive patient who is on a medical ward. This may be during an afterhours shift, at which point you will be the only psychiatric doctor in the hospital, and other medical colleagues may rely on your expertise in this area.

The following are some simple principles that you can use during these occasions:

1. *Ensure help is around*
   1. This might include nursing staff on the ward and, most importantly for a very agitated patient, security staff
   2. Since these patients are likely to be admitted under medical teams, ensure that you involve the treating team, and the medical registrar on call
2. *Try to verbally deescalate the patient*
   1. This usually involves remaining calm and trying to negotiate with the patient a plan for their management
   2. If this is not possible, this is, perhaps, the only occasion where it is ok to be dishonest with a patient to keep them calm and on the ward until help can arrive (see case below)
3. *Ensure the safety of yourself and those around you*
   1. In the event that an agitated patient is likely to become violent, the safest option may to be to let them go and ask for the police to retrieve them
4. *Act within a legal context*
   1. If the patient is mentally disordered or mentally ill under the meaning of the MHA, they will need to be scheduled on a medical ward to be chemically sedated or restrained (without a legal context, restraint and sedation may constitute assault)
   2. If an agitated patient requires medical care, then they may be treated (depending on circumstances) under a duty of care until emergency guardianship is sought (as soon as possible)
5. *Know which medications to use if a patient needs sedation*
   1. Principles
      1. Benzodiazepines are usually the safest option, but be aware that a very small minority of patients can become paradoxically agitated using benzos
      2. If an agitated patient is accepting oral medications, it is usually a good idea to give them oral agents which are likely to sedate them adequately, as this may be the only time they accept the offer of oral medications
      3. The medical context of the patient can determine the best agent to use, for example:
         1. One needs to be very cautious in prescribing antipsychotics to patients with movement disorders such as Parkinson’s Disease or to neurology patients who may be more susceptible to EPSEs
         2. Antipsychotics can lower the seizure threshold, and can induce seizures in predisposed patients (benzos obviously do not have this problem)
         3. Antipsychotics can prolong the QTc interval and cause arrhythmias (e.g. typical agents such as haloperidol or chlorpromazine, and atypicals such as quetiapine or ziprasidone) so should be used cautiously in patients with cardiac conditions
         4. Elderly patients require smaller doses as they have a reduced ability to metabolise/excrete medications
      4. Be cautious with the use of high potency typical agents to sedate patients (E.g. IM haloperidol) as they can cause severe EPSEs, akathisia (which worsens aggression), and possibly NMS with repeated administration
      5. Sedated patients need to be observed regularly to monitor their vital signs and respiratory status
   2. Suggestions
      1. Options for patients that are accepting oral medications (doses are for healthy adults):
         1. Diazepam up to 10mg
         2. Olanzapine up to 10mg
         3. Quetiapine (immediate release) up to 100mg
         4. Chlorpromazine up to 100mg
            1. Diazepam can be used with an antipsychotic, but avoid giving two antipsychotics together
      2. Options for IM sedation:
         1. Midazolam is safe and easy to use, initial suggested doses:
            1. 2.5mg IM or subcutaneously for the elderly (perhaps less if the patient is very frail; subcutaneous dosing may be preferred as it is less traumatic, and elderly patients may have reduced muscle mass. Be aware that absorption is slower than with the IM route and is impaired in dehydrated patients)
            2. 5mg IM for a healthy adult
            3. 10mg IM for a healthy adult who is physically fit and highly agitated with the imminent threat of violence
         2. Haloperidol
            1. Use with caution for the reasons already mentioned
            2. Use up to 5mg IM for a healthy adult with no underlying neurological condition
            3. Avoid repeat dosing, and avoid using haloperidol in patients who are already on regular antipsychotic medications
            4. Consider giving with benztropine 2mg IM to reduce the risk of dystonias
   3. Tips:
      1. It is preferable for patients to be given oral sedation if agitated, and to use parenteral sedation as a last resort if possible
      2. Never give IM midazolam and IM olanzapine together (or within one hour of each other) due to the risk of potentially fatal respiratory depression
      3. “Acuphase” or zuclopenthixol decanoate is an IM intermediate acting typical antipsychotic depot which is sometimes used in highly agitated patients. This medication should not be administered unless discussed with a consultant as any side-effects will be persistent (e.g. NMS, prolongation of the QTc)

Case:

*Amare is the on-call psychiatry registrar in Westmead Hospital. He receives a call from nursing staff in a general medical ward, who report that a patient who was recently transferred from ED is highly agitated, and they would like his assistance in managing the patient.*

*Whilst he is en route to the ward, the nurse in charge tells Amare that this patient, David, is 24 years old and presented to ED with family after an intentional overdose on a large quantity of Paracetamol. David is having a NAC infusion, and is also under the influence of methamphetamines which he injected earlier in the day. The nurse also tells you that David is threatening to pull out his cannula and leave the ward. He is swearing, “not making sense”, and talking about a government conspiracy.*

*Whilst en route Amare asks the nurse in charge to call security for assistance and to wait until he arrives. Upon arrival Amare finds that David is psychotic and is gesturing to pull out his cannula. Amare feels that he will not be able to reason with David, and recognises that David needs the NAC infusion or else he risks serious liver injury. Amare asks David to wait so that he can ask the nursing staff to take out his cannula and prepare some paperwork for him to be discharged. This seems to placate David for the moment.*

*Amare feels that David needs to be sedated in a quick manner for his safety and the safety of others, so asks the nurse in charge to draw up 10mg of IM midazolam. When security arrives, he informs them that David is agitated and needs IM medication, and that that it is unlikely he will comply with this.*

*Amare re-enters David’s room with the nurse in charge (who has the midazolam ready), and security (who are nearest to the patient).*

*Amare calmly explains to David that he needs an injection to help him remain calm. David makes a statement about Amare being “a secret government agent” and subsequently gets out of bed quickly whilst screaming. Security physically restrain him while the nurse administers the midazolam, which has a settling effect after a few minutes.*

*Amare asks the nurse and security to remain with the patient, and writes a schedule making David mentally ill under the MHA, as he recognises that David needs mental health care. He calls the medical registrar on call who, after liaising with the on-call toxicologist, organises for Amare to be transported to ICU so that he can be intubated and have his NAC infusion administered under the doctrine of necessity (until emergency guardianship can be organised).*

*Amare carefully documents what has happened, and speaks with the on-call consultant for any further advice.*

***What are the basics of managing the common psychiatric disorders?***

The following are some basic schemas for managing the common psychiatric disorders, based upon the structure outlined at the beginning of the chapter. It is also important to familiarise yourself with RANZCP clinical practice guidelines for managing particular psychiatric disorders.

*Managing borderline personality disorder (BPD):*

1. **Identifying any serious harms**
   1. The major potential serious harm is that of deliberate-self harm (e.g. severe cutting), and suicide (e.g. by overdosing)
   2. In general, make all reasonable efforts to keep the patient in the community with close community follow-up, so that the patient does not get into a cycle of repeated admissions as a way of seeking care and dealing with distressing situations
   3. If a patient’s suicidal thoughts intensify, or if they develop specific plans of wanting to end their life, then an admission may be warranted
      1. Patients will generally be able to tell you if they feel safe to be at home or not
   4. Short inpatient admissions can be useful for times of “acute stress” to keep the patient safe, but keep in mind that inpatient admissions themselves may be traumatic for certain patients (especially those with a history of developmental trauma)
   5. Voluntary admissions are preferred, as they indicate an attempt to “work with” a patient for them to return home safely
      1. Involuntary admissions may be necessary at times if the patient meets the criteria to be held under the MHA
2. **Alliance**
   1. Establish a therapeutic rapport keeping in mind:
      1. That borderline personality disorder is often caused by a series of developmental “invalidations”, and that empathy combined a collaborative approach is a powerful way of helping these patients
      2. That patients with personality disorders often unconsciously project intense emotions onto others
         1. Remaining calm and empathetic is a good way of modelling to a patient how to regulate their own emotions
      3. Some patients with borderline personality unconsciously “split” staff, which means that team cohesion is particularly important
3. **Diagnosis**
   1. The diagnosis of borderline personality disorder is usually evident by taking a history and seeking collateral information
   2. Ensure that the patient is not experiencing a depressive episode
   3. Ensure that patients are medically stable prior to transfer to a ward (e.g. that deep cuts are sutured if needed, and that the patient has had Paracetamol levels if an overdose is suspected)
4. **Biological treatments**
   1. There is no convincing evidence that psychotropic medications target the core symptoms of BPD
   2. Short term use of benzodiazepines as an inpatient may be helpful to manage a person’s distress if it is difficult for them to regulate their emotions even with assistance from staff
   3. Antipsychotic medications may be helpful for certain patients, in combination with psychological treatment to help regulate emotions. The lack of evidence base for this indication, and risks of treatment, should be discussed with the patient and medications ceased if they are not helpful
      1. An excessive focus on medications for BPD may shift the focus in an unhelpful way away from psychological treatments
5. **Psychological treatments**
   1. DBT is an evidence based approach, and it is useful for patients to take part in DBT groups and individual therapy if possible
   2. Psychodynamic therapy can be helpful, particularly for patients who have an ability to be reflective, and are motivated to engage in regular therapy
   3. Family therapy can be useful in younger patients as a way of identifying factors in family systems which can perpetuate unhelpful patterns of behaviour, and as a means of encouraging healthy patterns of communication
6. **Other professionals**
   1. Community case managers will be an important source of support to the patient upon discharge, and the rapport the patient has with their casemanager is often enough to prevent recurrent admissions
7. **Bridge to the community**
   1. If an inpatient, aim to discharge the patient as soon as they are better able to regulate their emotions, and when their intense suicidality has passed (keeping in mind that chronic suicidality is a feature of BPD)
   2. Work with community teams and the patient to establish a set of strategies the patient can use when distressed, with hospital being a last resort

*Managing anxiety disorders (using panic disorder as an example)*

1. **Identifying any serious harms**
   1. Anxiety disorders are associated with significant impairment in terms of daily living:
      1. Part of the reason for this is that patients with anxiety disorders tend to avoid what makes them feel anxious. For the patient with panic disorder, this may mean agoraphobic avoidance to the extent that the patient doesn’t leave their home at all
      2. Patients with anxiety disorders may not come to the attention of psychiatrists, which is a risk as treatment options are not accessible
         1. Patients with panic disorder may present recurrently to emergency departments with panic attacks, which they may misperceive as being life-threatening physical conditions such as heart-attacks. They may be quite reluctant to see a psychiatric doctor
   2. Most patients with anxiety disorders can be managed as outpatients
2. **Alliance**
   1. Developing a rapport with patients suffering from anxiety disorders involves a balance between empathy as well as firmness to help them overcome avoidant behaviours (otherwise known as “safety behaviours”)
3. **Diagnosis**
   1. The diagnosis of panic disorder is usually clear after taking a history, as there is a pattern of:
      1. Recurrent panic attacks
      2. Fear of further panic attacks
      3. Avoidance of situations where panic attacks may be embarrassing, or where help may not be available in case of an attack (agoraphobia)
   2. Ask a patient to clarify what they mean by a panic attack, including the somatic symptoms they experience (e.g. hyperventilation) and anxious cognitions they have about attacks (e.g. “I’m going to die” or “I’m going crazy”)
   3. Seeking collateral information from family may be helpful to quantify the degree of avoidance the patient is utilising to avoid experiencing anxiety
   4. Clarify whether the patient is using substances to manage their anxiety (e.g. “off the street” benzos or alcohol)
   5. It is important to exclude important medical conditions which may appear to be panic symptoms or which are precipitating attacks, such as:
      1. Thyrotoxicosis (check TFTs)
      2. Pheochromocytoma (rare, check 24 hour urinary catecholamines if this is suspected)
      3. Recurrent episodes of supraventricular tachycardia or other cardiac arrhythmias (a continuous Holter monitor may be indicated as well as a cardiology opinion)
4. **Biological treatments**
   1. Serotonergic antidepressants (e.g. SSRIs or SNRIs) are indicated in most anxiety disorders, including panic disorder (Maudsley Guidelines)
   2. “Start low, go slow” as serotonergic antidepressants may cause a patient to become more anxious for a few days before the anxiolytic effect occurs
   3. Benzodiazepines are best avoided in the long-term due to dependence potential, but may be helpful for a few days to manage the anxiety which can occur when starting antidepressants
5. **Psychological treatments**
   1. For all anxiety disorders provide psychoeducation to the patient:
      1. That anxiety is a normal response to stressful situations
      2. That anxiety is exaggerated in anxiety disorders, and that avoidance is a “temporary fix” which is, in the long run, unhelpful and causes disability
      3. Explain the bodies physical response to anxiety, the “fight or flight response”, and explain that this is overactive in anxiety disorders
      4. It is very important to reassure the patient that they cannot die from a panic attack, and that anxiety always peaks but, more importantly, always fades (which is reassuring when doing exposure therapy)
   2. CBT for anxiety disorders (also see the section on CBT in this chapter for a case example):
      1. Give the patient tools to manage their anxiety
         1. Relaxation strategies e.g. progressive muscle relaxation to reduce baseline arousal and tension, pleasant imagery, slow breathing
            1. It is important that patients practice slow breathing as hyperventilation drives the other somatic symptoms of panic
      2. Challenge the patient’s anxious “catastrophic thoughts”
         1. E.g. in panic disorder challenging the belief that a panic attack will be lethal, or the belief that having a panic attack in public will result in shame and ridicule
      3. Exposure therapy
         1. The patient creates a list with their therapist of the feared situations which they have been avoiding, and ranks them according to least anxiety provoking to most anxiety provoking (developing an exposure hierarchy)
         2. The patient is exposed to their feared situations from the bottom of the hierarchy up (systematic desensitisation)
6. **Other professionals**
   1. A psychologist well versed in CBT is an asset when treating patients with anxiety disorders
7. **Bridge to the community**
   1. Consider referring the patient to a specialist anxiety disorders clinic

*Managing unipolar depression*

1. **Identifying any serious harms**
   1. The main potential serious harm is that of suicide, and involuntary treatment should be considered for depressed patients who are suicidal and cannot be safely managed in the community
2. **Alliance**
   1. Providing psychoeducation to a depressed patient involves explaining that depression is not the same as “normal sadness”, which provides a rationale for treatment. It is useful to provide this education to the patient’s family members as well
3. **Diagnosis**
   1. Rule out medical causes (e.g. by ordering thyroid function tests)
   2. Exclude bipolar disorder by exploring for past manic episodes
   3. Ask about a family history of bipolar disorder, as antidepressants may cause mood instability in these patients
   4. Explore for any features of psychotic depression, which would warrant the use of an antipsychotic with an antidepressant
4. **Biological treatments**
   1. Pharmacotherapy is indicated in moderate-severe major depression (e.g. depression with biological features, extreme fatigue, suicidality):
      1. First line:
         1. SSRIs (well tolerated and safe in overdose)
         2. Mirtazapine (especially if insomnia is an issue)
      2. Second line:
         1. SNRIs (well tolerated but more dangerous than SSRIs in overdose)
      3. Third line:
         1. Older antidepressants such as TCAs (effective but have greater side effect burden and dangerous in overdose)
      4. Avoid combining antidepressants due to the risk of serotonin syndrome (although some clinicians augment SSRIs or Venlafaxine with mirtazapine)
   2. Augmentation options:
      1. Certain medications can be used to increase the efficacy of antidepressants for patients who only partially respond to these agents:
         1. Lithium
         2. Atypical antipsychotics (e.g. quetiapine, olanzapine, aripiprazole)
         3. Thyroid hormones (thyroxine is safer than T3 and less likely to induce a thyrotoxic state or cause osteoporosis with long-term treatment, although there is more evidence for T3 in depression)
   3. ECT:
      1. First line for patients with psychotic depression or severe melancholic depression who are highly distressed, suicidal, or are at physical risk due to poor oral intake
      2. Can be used for treatment resistant unipolar depression (i.e. patients who do not adequately respond to pharmacotherapy)
5. **Psychological treatments**
   1. CBT can be helpful by:
      1. Challenging negative thoughts which are a consequence of, and perpetuating factor, for depression
      2. Developing a schedule of behavioural activation (i.e. a set of graded activities which aims to offset the apathy and reduced enjoyment caused by depression)
   2. Psychodynamic therapy can be useful for chronic, difficult to treat depression in patients for whom developmental factors are thought to be a significant, or in patients with chronic dysthymia
6. **Other professionals**
   1. Ongoing psychological therapy is often useful once a patient is discharged from hospital (e.g. from a psychologist trained in CBT)
   2. Nursing staff can provide helpful information about a patient’s mood while they are an inpatient (e.g. by monitoring their enjoyment and affect on the ward, as well as sleep and appetite)
7. **Bridge to the community**
   1. After an episode of depression, it is worth developing a “relapse prevention plan”, either in hospital or in the community, which:
      1. Involves family members
      2. Identifies triggers for illness
      3. Identifies early warning signs for their illness, and how to act on these
      4. Addresses medication issues, including the important of compliance and instituting measures than can make it easier for patients to take their medication (e.g. blister packs, phone reminders, dosette boxes, help from family etc.)
      5. Provides suggestions on how to stay well (including contact numbers for community teams, as well as psychological strategies and details of follow-up)
   2. Such relapse prevention plans can be adapted to patients with any kind of mental health problem (e.g. bipolar disorder, schizophrenia)
   3. Some patients with treatment resistant depression may require “maintenance ECT” in the community (e.g. once a month)

*Managing bipolar disorder*

1. **Identifying any serious harms**
   1. Potential serious harms associated with mania:
      1. Serious harm to reputation (e.g. to disinhibition and overfamiliarity)
      2. Serious harm related to vulnerability to exploitation (e.g. due to impaired reasoning and assessment of danger)
      3. Serious financial harm due to overspending
      4. Serious harm to physical health (e.g. contracting sexually transmitted infections, risky driving)
      5. Serious harm to relationships due to all of the above, as well as the strain caused by recurrent episodes of mania and depression
   2. Manic patients may have insight into the fact that they are manic, and may be able to “normalise their behaviour” for short periods of time to evade treatment. This reflects a desire to maintain the feeling of euphoria that is often the part of a manic episode. This can make it challenging to have such patients admitted to hospital
   3. Hypomanic patients who are, by definition, not psychotic or grossly impaired may be treated in the community or be simply monitored. Patients with bipolar 2 will spend most of their illness being depressed, as opposed to hypomanic
2. **Alliance**
   1. As with other psychiatric disorders, it is important to provide psychoeducation to patients with bipolar disorder, as well as their family members:
      1. It is important to tell patients and their families that individuals with bipolar disorder tend to have normal levels of functioning between episodes, which can often create an atmosphere of hope for the patient and their family members
3. **Diagnosis**
   1. It is important to take collateral history from close friends and family as, in some cases, patients may be masking their manic symptoms
      1. Ask about:
         1. Any unusual behaviour e.g. change in personality, risk taking behaviour, excess spending
         2. Whether the patient’s speech has been rapid, and whether they have been sleeping well
         3. Any concerns that the patient may soon get themselves into serious trouble and, if so, what are those concerns
         4. Is there a history of any such past episodes, depression, or family history of bipolar disorder?
         5. Have there been issues with compliance (a particular problem if someone is on lithium)?
   2. Ensure an adequate physical workup, including:
      1. Urine drug screen (in order to rule out substance intoxication as a cause for disinhibited behaviour)
      2. Thyroid function, renal function, electrolytes, ECG (a basic workup which is needed prior to commencing Lithium)
      3. Serum levels for mood stabilisers (to monitor compliance and to check if trough levels are therapeutic)
4. **Biological treatments**
   1. In general:
      1. All patients should ideally be on a “core mood stabiliser”, such as:
         1. Lithium (gold standard, proven efficacy for treatment and prevention of all phases of bipolar disorder, but not a good option for poorly compliant patients)
         2. Sodium valproate (more efficacy with treating and preventing mania, useful for mixed episodes)
         3. Lamotrigine (more efficacy with treating and preventing bipolar depression)
         4. Carbamazepine (not a good agent in the elderly due to multiple drug interactions, may be useful in young patients due to minimal weight gain)
      2. These “core mood stabilisers” can be useful in the acute phases of illness of bipolar disorder, but are also useful in preventing further episodes which is why they are an important part of ongoing treatment
      3. Keep in mind that all of these medications have potentially teratogenic effects (especially valproate and carbamazepine)
         1. Lithium is a viable option in pregnancy, but requires specialist supervision
   2. For acute mania:
      1. Consider stopping the patient’s antidepressant (if they are on one)
      2. Optimise the levels of current medications
      3. Consider combining mood stabilisers e.g. lithium/valproate in rapid cycling patients
      4. Consider atypical antipsychotics for their “acute anti-manic” properties (be cautious of long-term use of quetiapine or olanzapine due to metabolic side-effects)
      5. Benzodiazepines can be useful in the acute phase for management of agitation
   3. For acute bipolar depression:
      1. Evidence for:
         1. Lithium
         2. Lamotrigine
         3. Quetiapine
         4. Olanzapine-fluoxetine
      2. There is much controversy about the use of antidepressants in bipolar disorder:
         1. Little to no studies indicating efficacy, but substantial clinical experience of benefits (RANZCP mood disorders guidelines)
         2. Low dose SSRIs may be helpful and have less of a chance of causing a “manic switch”
   4. ECT can be used for treatment resistant mania or bipolar depression, or if rapid symptom control is needed
5. **Psychological treatments**
   1. Interpersonal and social rhythm therapy is an evidence based treatment (IPSRT) in bipolar disorder:
      1. Based upon the recognition that a healthy sleep-wake cycle (or circadian rhythm) if vital for maintaining wellness in bipolar patients
      2. Treatment involves:
         1. Dealing with the grief of having a chronic mental illness
         2. Education about the importance of a healthy circadian rhythm
         3. Developing a regular daily pattern in terms of sleep-wake cycle, promoting sleep hygiene, and developing a regular cycle of occupational and social activities
6. **Other professionals**
   1. Nursing staff can help monitor the patient’s sleep, as well as note any inappropriate behaviour or risk of exploitation for manic patients admitted to acute wards
   2. Treatment plan should involve liaising with the patient’s GP or community team, to monitor:
      1. Metabolic profile (especially if on quetiapine or olanzapine)
      2. EUC/TFT/Lithium levels every 3 months once lithium levels are stable
      3. Sodium valproate levels along with FBC/LFTs at least every 6 months
7. **Bridge to the community**
   1. Develop an individualised relapse prevention plan involving the patient’s family (including identifying early warning signs from the recent episode of illness)
   2. Educate young women of childbearing age about the need to plan with their GP/psychiatrist/other specialist if they wish to have a child, and explain the teratogenic potential of any medications they are on
      1. It is important to emphasise to the patient that they can have a child, but that close monitoring and specialist input will be needed to ensure that they remain well during and after pregnancy
      2. Women with bipolar disorder are at a higher risk of postpartum depression/psychosis

*Managing schizophrenia*

1. **Identifying any serious harms**
   1. Certain patients may have a higher risk of suicide (although this is hard to predict), including those who are:
      1. Socially isolated
      2. Depressed (patients can have a “post-psychotic depression”)
      3. Previous suicide attempt
      4. Substance misuse
      5. Retained insight, good premorbid functioning
      6. Akathisia
      7. Poor compliance to medication
   2. Increased risk of serious harm towards others:
      1. The “HCR-20” is a specialised forensic tool which can be used to assess the risk of harm to others in patients with psychosis (usually used in the forensic mental health system)
   3. Risk of non-compliance:
      1. A significant proportion of patients with schizophrenia, as well as patients with other psychiatric disorders, are non-compliant with their psychotropic medications
      2. Factors impacting compliance:
         1. Patient factors
            1. Attitude to medication
            2. Fear of being stigmatised
            3. Insight into illness
            4. Family and cultural factors
         2. Clinician factors
            1. A warm therapeutic rapport with a patient can itself assist with compliance
         3. Medication factors
            1. Is the medication regimen too complex (e.g. multiple medications, no blister pack)?
            2. Is the patient having intolerable side-effects (e.g. sexual side-effects)?
            3. Is the medication not treating the psychosis?
         4. Illness factors
            1. Psychotic symptoms themselves may make it difficult for a person to take medication (e.g. if a patient is too fearful to leave their home)
         5. Practical factors
            1. Medication cost
            2. Knowledge of how to get their medication (may relate to cognitive changes seen in schizophrenia)
            3. Motivation to get medication (e.g. from negative symptoms)
   4. There is a serious risk of the metabolic syndrome in patients with schizophrenia who are on long-term atypical antipsychotics such as quetiapine, olanzapine, or clozapine
2. **Alliance**
   1. There is a push in mental health to think about a patient’s recovery, as opposed to focussing on their illness. This is particularly the case with schizophrenia, which has traditionally been viewed as having a poor prognosis
      1. Principles of the “recovery movement”:
         1. Hope and optimism that recover is possible
         2. Autonomy, respecting patient choice wherever possible
         3. Having plans directed by the patient
         4. Focussing not just on reducing symptoms, but also improving the patient’s ability to function in everyday life
3. **Diagnosis**
   1. From a practical perspective, it is important to distinguish between mood related psychoses (mania or psychotic depression) and a non-affective psychotic episode, as management is different for each
   2. There is a significant focus on early intervention in psychosis, and it is known that a long “duration of untreated psychosis” is associated with poorer outcomes in the long term
   3. It is important to consider an organic screen in all patients with a first episode of psychosis, including:
      1. Routing blood investigations
      2. Neuroimaging (MRI is preferable, as it images the posterior fossa more reliably)
      3. EEG (if there are concerns about temporal lobe epilepsy)
      4. Baseline metabolic screening
      5. Clozapine workup if patient is treatment-resistant
4. **Biological treatments**
   1. First line agents are the atypical antipsychotics due to the reduced risk of tardive dyskinesia and other EPSEs, but keep in mind that some of these agents can cause the metabolic syndrome
   2. Typical antipsychotics may have a place for some patients, and EPSEs may not be as prominent at low doses
   3. A patient is “treatment resistant” (occurs in 25% of cases) if they fail to respond to 2 antipsychotics at adequate dose, duration, and if they were compliant with therapy
      1. In such cases, switch to clozapine as soon as possible, after doing a physical workup, and after discussing the specifics of this treatment with the patient and their family
      2. If clozapine is not fully targeting symptoms (keeping in mind the therapeutic effect may take months), consider augmenting with:
         1. Aripiprazole
         2. Other medications e.g. amisulpride, lamotrigine
         3. ECT
   4. There is evidence that olanzapine may more effective than other antipsychotics (excluding clozapine), and it may be worth trialling olanzapine prior to commencing clozapine
5. **Psychological treatments**
   1. There are a variety of psychosocial interventions which can be used to reduce psychotic symptoms, improve cognition, as well as enhance a patient’s ability to lead a functional life, including:
      1. *Social skills training*
         1. This aims to address some of the social skills deficits seen in schizophrenia, including deficits in non-verbal and verbal communication (e.g. body posture and tone of voice)
         2. Involves modelling social interactions and rehearsal (e.g. practicing how to perform at a job interview)
      2. *Cognitive remediation*
         1. Focuses on addressing the cognitive deficits seen in schizophrenia, particularly difficulties with problem solving and other higher level frontal lobe functions (executive functioning)
         2. This may be achieved by using computer based games which gradually increase in difficulty
      3. *Cognitive behavioural therapy*
         1. This can be used for patients who have persistent psychotic symptoms (delusions and hallucinations) non-responsive to antipsychotics
         2. CBT for psychosis involves challenging delusional ideas gently, devising experiments to disprove delusional ideas, as well as developing coping strategies for hallucinations
      4. *Vocational rehabilitation*
         1. This involves helping a patient to get a job that is suited to their level of functioning, and which they enjoy. This is, perhaps, one of the most important treatments for schizophrenia
         2. Ongoing employment can lead to a sense of agency and fulfilment. It can also allow individuals to practice social skills and improve their cognition, so is a multi-faceted intervention
      5. *Family therapy*
         1. Family based interventions can provide psychoeducation, as well as ensure that a patient’s illness does not cause them to take on the perpetual role of being “the patient” within a family system (e.g. by promoting communication, addressing conflict, and setting boundaries)
6. **Other professionals**
   1. A multidisciplinary approach is vital to rehabilitation (inpatient or outpatient) in schizophrenia, and each member of the team has unique skills to offer:
      1. Occupational therapists
         1. Assess an individual’s ability to undertake daily skills of living, providing training (e.g. how to take public transport), and assist with employment options
      2. Social worker
         1. Organise a patient’s finances, ensure they have the capacity to manage their finances, and organise accommodation
      3. Dieticians
         1. Provide advice about nutrition and healthy living
      4. Psychologists
         1. May help with therapies such as CBT
         2. Neuropsychologists can do neuropsychological reports which highlights a patient’s cognitive strengths and weaknesses, which can guide rehabilitation
7. **Bridge to the community**
   1. Methods to improve medication compliance:
      1. Education about the illness, medications, side-effects, and how to manage side-effects
      2. Involving family members with medication administration (in the short-term)
      3. Blister packs
      4. Post-it notes and phone reminders
      5. Depot antipsychotics as a last option (unless they are preferred by patients), with consideration as to whether a CTO is indicated
   2. Liaison with the patient’s GP to ensure metabolic monitoring
      1. Consider the use of metformin in obese patients on antipsychotics
   3. Encouraging lifestyle changes
      1. Smoking cessation
      2. Diet (encourage patients to switch to coke zero instead of “normal coke”)
   4. Community case managers can monitor medication compliance and coordinate psychosocial measures, and certain NGOs can also be helpful in terms of psychosocial rehabilitation

*Managing dementia*

1. **Identifying any serious harms**
   1. Potential serious harms in dementia mainly relate to the risk of an individual living on their own without support, as well as behavioural and psychological symptoms of dementia (BPSD):
      1. Serious harm due to accidents (e.g. walking in front of traffic)
      2. Serious harm relating to self-neglect (e.g. not showering, inability to obtain food)
      3. Serious harm due to medical illness (e.g. a dementia patient who is unable to manage their insulin due to cognitive deficits)
      4. Serious harm of falls (more likely with some dementias e.g. Lewy Body Dementia)
      5. Serious harm relating to driving (a major potential risk in a cognitively impaired patient)
      6. Serious harm due to exploitation and elder abuse (e.g. being financially taken advantage of, or a violent care-giver)
      7. Serious harm due to wandering and not being able to return home
      8. Serious harm relating to aggression towards others (more apparent in frontal dementias)
   2. BPSD refers to disturbances of mood, thought, perception and behaviour that are attributable to an individual’s dementia, which includes psychotic symptoms, as well as the underlined behaviours listed above
2. **Alliance**
   1. Goals of treatment:
      1. Treat psychiatric symptoms
         1. E.g. depression, mania, psychosis
         2. Psychotic symptoms may be due to a pre-existing psychiatric disorder e.g. an early onset schizophrenia, or be part of the dementia process (which is labelled as BPSD)
      2. Address behavioural symptoms
         1. Including aggression, emotional lability, disinhibition, wandering etc.
      3. Preserve the patient’s dignity
      4. Promote independence whilst also keeping the patient safe
      5. Providing support to carers
         1. Caring for an individual with dementia can be incredibly exhausting and often the patient’s emotional and physical state is linked to the wellbeing of their carer
         2. It is important to recognise the needs of carers, to understand the challenges they face, as well as involve them in the treatment of their loved one
3. **Diagnosis**
   1. Keep in mind important differential diagnoses:
      1. Depression leading to a pseudo-dementia picture
         1. The patient will have depressive symptoms preceding cognitive deficits, and may have a history of depression
      2. Delirium (which may occur “on top of” a dementia)
         1. There will be an abrupt change in the patient’s mental state which is fluctuating and often associated with a medical aetiology e.g. UTI, hyponatraemia etc.
   2. Establishing a diagnosis of dementia involves:
      1. Collateral from family
         1. E.g. recent changes in memory, ability to self-care, change in personality, language deficits (e.g. loss of vocabulary or difficulties with word finding)
      2. Clinical assessment of the patient
         1. Interview
            1. Note factors such as:

Whether the patient is coherent, orientated, able to recall the events of their day, behaviourally appropriate, and whether there are depressive or psychotic symptoms

* + - 1. Perform bedside cognitive testing with the patient
         1. Preferably an Addenbrook’s Cognitive Examination III (the most comprehensive amongst bedside tests)
    1. Neuropsychological assessment
       1. A formal assessment from a neuropsychologist can help develop an in-depth cognitive profile, assist with the diagnosis of dementia, and help to distinguish between the dementias
       2. Helps to determine a patient’s strengths and weaknesses in terms of cognition, which can help guide other aspects of treatment (e.g. treatment of BPSD)
  1. Identify and treat reversible causes of dementia (seen in 15% of cases)
     1. Vitamin deficiencies (check B12/folate levels)
     2. Endocrine dysfunction e.g. hypothyroidism (check TFTs)
     3. Infectious causes (check syphilis and HIV serology with consent)
     4. Metabolic causes e.g. chronic and severe renal or hepatic impairment (check renal and hepatic function)
     5. Neurological causes identified with neuroimaging e.g. MRI (including subdural haemorrhage related to a fall, an intracranial mass, multiple sclerosis, or normal pressure hydrocephalus)
        1. Normal pressure hydrocephalus presents with a clinical triad of confusion, ataxia, and urinary incontinence
     6. Treatable neurodegenerative disorders e.g. Wilson’s Disease (check serum caeuroloplasmin levels)
  2. Specialised neuroimaging tests can help to distinguish between dementias e.g. SPECT or PET scans

1. **Biological treatments**
   1. These include:
      1. Treating any reversible cause which is identified in the diagnostic workup
   2. Cognitive enhancing medications:
      1. Cholinesterase inhibitors e.g. donepezil, rivastigmine
         1. Indicated in mild-moderate Alzheimer’s Disease, Lewy Body Dementia, Parkinson’s Dementia
            1. May improve cognitive and behavioural symptoms, or reduce the rate of decline
            2. They should be ceased if no benefit is noted
         2. Main adverse-effects include bradycardia, induction of heart block (workup must include an ECG), GI side-effects, and worsening of asthma or COPD
      2. Memantine is an NMDA receptor antagonist which is indicated in moderate-severe Alzheimer’s Dementia
   3. Pharmacotherapy of BPSD symptoms
      1. Target symptoms include aggression, disinhibition, or psychotic symptoms associated with dementia
      2. Risperidone is licenced for use in BPSD in Australia
      3. Antipsychotics increase the risk of stroke in dementia patients and are best avoided if possible, or used for a short period of time
      4. Avoid antipsychotics if possible in Lewy Body Dementia patient’s due to sensitivity to antipsychotic side-effects, especially EPSEs
2. **Psychological treatments**
   1. Psychological and social interventions effective in BPSD:
      1. Consistency and routine
      2. Addressing “unmet needs” which a patient may be unable to express (e.g. pain, hunger, constipation)
      3. Empathic approach and an attempt to work with a patient, rather than dictating to them what to do
      4. Safe physical environment which is easy to navigate
      5. Distraction techniques during periods of distress
      6. Behavioural analysis to identify antecedents of the behaviour of concern, as well as consequences
3. **Other professionals**
   1. Treatment of dementia requires a true multi-disciplinary approach with input from a variety of disciplines
      1. Occupational therapists can contribute to care by:
         1. Doing a functional assessment to see whether a patient is able to look after themselves at home, or whether placement in an aged care facility is indicated
         2. Ensuring that a patient’s home is safe in terms of the physical environment (e.g. by installing ramps or rails in the home)
         3. Suggesting a series of structured activities or groups for the patient to be involved with to encourage socialisation
      2. A social worker can contribute to care by:
         1. Organising an assessment by the “Aged Care Assessment Team” (ACAT) which identifies which community resources or nursing home placement options are available for the patient
            1. Placement in an aged care facility may be permanent or on a temporary respite basis
            2. Temporary respite allows the carer to recover from the stresses of being a carer, and for the patient to live in a different setting for a short while
         2. Ensuring the patient has someone to make medical, dental, and accommodation decisions for them if they are unable to make these decisions
            1. This will be a guardian appointed by NSW Civil and Administrative Tribunal Guardianship Division, and is either an appointed guardian who is a close friend or relative of the patient, or a public guardian
         3. Ensuring the patient has someone to make financial decisions for them if they are unable to do so (for instance to make financial arrangements to move into an aged care facility)
            1. This may be a private financial manager appointed by NCAT (usually a family member of the patient) or a public trustee who is not related to the patient (preferable if there are concerns over financial vulnerability)
         4. *Note: Patient’s themselves can appoint an enduring power of attorney and enduring guardian whilst they have the capacity to do so. Enduring guardians can look after the medical, dental, and accommodation needs of the patient if they lose capacity to make these decisions. An enduring power of attorney can make financial decisions and arrangements for the patient, if they are unable to. This is usually arranged through a solicitor and organised by the individual and their families.*
      3. A neuropsychologist can contribute to care by:
         1. Helping to establish a diagnosis of dementia
         2. Help to identify a patient’s cognitive strengths and weaknesses to guide other parts of their care
      4. Geriatrician or neurology opinion:
         1. Expert advice can be quite useful when the diagnosis of dementia is not clear, and to help exclude rare causes of dementia (e.g. in young patients who present with cognitive problems)
4. **Bridge to the community**
   1. The patient may be discharged home with additional services, such as:
      1. Help with showering the patient and assisting with basic self-care at home
      2. Help linking in the patient with day groups to encourage socialisation and provide respite to a carer
      3. Providing help with other services such as cooking, cleaning etc.
   2. Alternatively, a patient may be discharged to an aged care facility which, preferably, would be close to their friends and family. This may be in an open hostel type arrangement where patients can come and go from the facility as they wish, but receive meals and assistance with medications from staff
      1. Some patients may need secured dementia specific wards due to risk of wandering or high physical care needs
   3. Encourage elderly patients to appoint enduring guardians, enduring powers of attorneys, as well as to think about wills and advanced care directives whilst they have the ability to make decisions in keeping with their preferences
   4. Arranging follow-up:
      1. There are “BPSD services” which can provide assistance to aged care facilities for patients with difficult behaviours, and which provide individualised non-pharmacologically based options (e.g. DBMAS)
      2. Specialised older adult mental health teams can provide follow-up to patients with BPSD who may require medication, or in patients with dementia who have a superimposed mental illness
      3. It is vital that carers be provided with ongoing support, including:
         1. The option of respite
         2. Being linked into carer support groups
         3. Being a part of their loves one’s care planning and appointments
         4. Being provided specific resources e.g. resources found on the Alzheimer’s Australia website

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6. “Royal Australian and New Zealand College of Psychiatrists clinical practice guidelines for mood disorders”, First published in Australian and New Zealand Journal of Psychiatry 2015, Vol. 49(12) 1-185.

7. “Royal Australian and New Zealand College of Psychiatrists clinical practice guidelines for the treatment of eating disorders”, First published in Australian and New Zealand Journal of Psychiatry 2014, Vol. 48(11) 1-62

**Further recommended reading:**

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