

**1**

You are working as an aeromedical retrieval consultant. You have been tasked to a remote community to retrieve a patient who has presented with an exacerbation of schizophrenia.

1. List 6 features on history or examination that would indicate a potential threat to patient and staff safety during transport. (6 marks)

- 1) *Threats of violence*
- 2) *Active thought disorder*
- 3) *Inability to follow commands*
- 4) *Current intoxication*
- 5) *History of violence*
- 6) *Evidence of significant self-harm*

2. List 3 drugs, with doses, that you might employ as chemical sedation to facilitate safe retrieval of the patient. (3 marks)

- 1) *Diazepam 10mg oral prn*
- 2) *Ketamine 20mg aliquots prn, or infusion*
- 3) *Droperidol 10mg IM or IV*

3. List 3 other strategies you might employ to facilitate safe management of this patient. (3 marks)

- 1) *Avoid air transport altogether – ground transport*
- 2) *Employ police / security to travel with pt*
- 3) *Intubate for transfer / general anaesthesia*

2.

A 45 year old man has been brought in by ambulance to your ED. He was found wandering the streets naked, acting bizarrely. He became aggressive when paramedics tried to transport him to hospital and the police were called to restrain him. On arrival in ED he is extremely agitated and has been handcuffed.

1. List **five (5)** steps in the restraint of this man in escalating order.

1. *Verbal de-escalation*
2. *Oral sedation*
3. *Show of force*
4. *Physical restraint*
5. *Chemical restraint*

2. Name **three (3)** commonly used agents that can be used in chemical restraint , including dose, route of administration and 2 major adverse effects for each.

Drug	Dose (mg)	Route	Adverse effect
<i>Midazolam</i>	<i>2.5-10</i>	<i>IV/IM</i>	<i>Respiratory depression – aspiration risk</i>
<i>Diazepam</i>	<i>2.5-10</i>	<i>PO/IV</i>	<i>Respiratory depression – aspiration risk</i> <i>Extravasation is painful ++</i>
<i>Droperidol</i>	<i>2.5 -10</i>	<i>IM/IV</i>	<i>Prolonged QT</i> <i>Dystonic reaction</i>

3. Name **five (5)** signs or symptoms that are suggestive of an organic cause of a behavioural disturbance.

1. *abnormal vital signs*
2. *disorientation with clouded consciousness*
3. *age > 40 without a previous history of psychiatric disorder*
4. *focal neurological signs*
5. *visual hallucinations*

4. List **five (5)** organic causes of an acute psychosis

1. *Metabolic disorders – hypoxia/hypoglycaemia/hyponatraemia/hypercalcaemia*
2. *Neurological disorders – encephalitis/meningitis/neoplasm/alzheimers*
3. *Endocrine disorders – Addisons/cushings/thyroid disease*
4. *Organ failure – uraemia/hepatic encephalopathy*
5. *Drug intoxication/withdrawal – alcohol/amphetamines/GHB*

3.

A 17 yr old girl is brought to the emergency department by her parents as they are concerned she isn't eating enough. On examination she is extremely pale and thin. Her weight is 42 kg and her height is 173 cm.

(1) What are 4 of the diagnostic criteria for anorexia nervosa ?

- *BMI < 17.5 (or body weight < 85 % expected)*
- *Weight loss is self induced*
- *One or more of :*
- *Body image distortion (delusional belief of being overweight, even when dramatically thin).*
- *Self induced vomiting or purging*
- *Excessive exercise*
- *Associated endocrine disorders (eg amenorrhoea for >3 consecutive months for post-menarche females)*

(2) Give 4 **medical** indications for admission for patients with eating disorders.

- *Heart rate < 40*
- *BP <90/60*
- *Symptomatic hypoglycaemia*
- *K<sup>+</sup> < 3*
- *Dehydration*
- *Other cardiovascular abnormalities*
- *Temp < 36*

(3) Give 2 long term complications of eating disorders

- *Osteoporosis*
- *Short stature*
- *Abnormalities of cognition (loss of grey matter during starvation may persist)*
- *Higher miscarriage rate*
- *Renal calculi*

#### 4.

A 40 year old man is brought to the Emergency Department after taking an overdose of prescribed medication.

1. List seven (7) features on history that indicate a heightened risk for completed suicide.

*S – Sex: 1 if male; 0 if female; (more females attempt, more males succeed)*

*A – Age: 1 if < 20 or > 44*

*D – Depression: 1 if depression is present*

*P – Previous attempt: 1 if present*

*E – Ethanol abuse: 1 if present*

*R – Rational thinking loss: 1 if present*

*S – Social Supports Lacking: 1 if present*

*O – Organized Plan: 1 if plan is made and lethal*

*N – No Spouse: 1 if divorced, widowed, separated, or single*

*S – Sickness: 1 if chronic, debilitating, and severe*

2. Provide a list of investigations which would be completed prior to referral to the psychiatric services including three (3) mandatory tests and four (4) optional tests determined by the details on assessment. Include detail on how the investigations will aid assessment.

<i>Test</i>		<i>How test will aid assessment</i>
<i>Mandatory test 1</i>	<i>Glucometer</i>	<i>?oral hypoglycaemic ingestion</i>
<i>Mandatory test 2</i>	<i>ECG</i>	<i>Features of sodium channel blockade, TCA ingestion, Beta blocker/CCB ingestion, K high or low</i>
<i>Mandatory test 3</i>	<i>Serum paracetamol</i>	<i>'Silent' toxicity</i>
<i>Optional test 1</i>	<i>LFT's</i>	<i>If unknown time of ingestion, ALT can guide risk of delayed presentation of paracetamol ingestion,</i>
<i>Optional test 2</i>	<i>Other serum drug level</i>	<i>Anti-epileptics, digoxin, lithium</i>
<i>Optional test 3</i>	<i>CXR</i>	<i>Features of aspiration pneumonitis</i>
<i>Optional test 4</i>	<i>Renal function</i>	<i>Baseline for risk of poor clearance (cf Lithium), monitoring for drugs causing ARF</i>
<i>Breath/blood alcohol level</i>		<i>Impact on conscious level, time before 'medically cleared'</i>
<i>INR/coags</i>		<i>Warfarin overdose, NOAC ingestion</i>
<i>ABG/VBG</i>		<i>Monitor pH when treating sodium channel blockers</i>

3. List two (2) absolute and two (2) relative indications for admission.

*Absolute:*

*Score of > 7 on sad persons scale or similar scoring system*

*Requiring ongoing treatment for ingestion i.e. NAC, dialysis, ICU monitoring/care*

*Relative:*

*Poor social situation*

*Potential for delayed onset toxicity*

*Stabilisation of underlying medical condition*