



Fellowship Examination – Examples of SAQs

Question 1 (16 marks available)

A 55 year old man is brought to the emergency department after taking an overdose of a number of medications. He has a background of hypertension, type II diabetes mellitus, and gout.

- i. List six (6) of the strongest risk factors for completed suicide in a patient who is considered at risk. (6 marks)
- S – Male Sex (gender - more females attempt, more males succeed, thus males more likely to be admitted)
 - A – Age < 20 or > 44
 - D – Depression in past history
 - P – Previous attempt
 - E – Ethanol and drug abuse
 - R – Rational thinking loss
 - S – Social supports Lacking
 - O – Organized plan present
 - N – No spouse e.g. divorced, widowed, separated, or single
 - S – Sickness, chronic medical disease

Other appropriate risk factors e.g. “lethality of attempt method” “stated future attempt”, “poor likelihood of discovery” etc. are also acceptable. The candidate does NOT have to use the mnemonic above

- ii. List three (3) investigations you would order to assess for medication toxicity in a patient with altered mental state, when the substance(s) ingested are unknown. Include an explanation of how each investigation will aid assessment. (6 marks)

	Test	Explanatory comment
Investigation 1	Glucometer/Blood glucose	Altered mental state and may occur if the patient has taken an OD of anti-diabetic medications
Investigation 2	ECG	May show features of sodium channel blockade, TCA ingestion, Beta blocker/CCB ingestion, K high or low
Investigation 3	Serum paracetamol	‘Silent’ toxicity

Other Investigations, e.g. an ethanol level, would be acceptable with an appropriate explanatory comment.

- iii. On completion of medical and psychiatric assessment, the patient is deemed safe for discharge. State four (4) criteria that suggest this patient is safe to be discharged home. (4 marks)
- Good social supports/ presence of good supervision at home
 - Patient guarantees own safety.

- Follow up confirmed-mental health and/or medical.
- Understanding by the patient and their social support/s (if present) of the criteria for seeking further medical/mental health review.
- No longer intoxicated/normal obs.
- Symptoms of toxicity controlled.

This question has several formats

- Assesses pathogenesis. Note the use of the term risk factors.*
- Assesses investigations. Note the explanatory comment which asks for more depth of knowledge.*
- Assesses disposition decision making. There may be other answers which are correct and as valid & relevant as the listed answers. If this is the case, the examiner will award them a mark.*

Question 2 (13 marks)

You are the duty consultant in a northern Australian emergency department during the summer months. You receive a 35 year old female surfer who has been dragged from the water and brought in by car. She is extremely distressed by leg pain.

Vital signs are:

HR	140 bpm (regular)
BP	150/90 mmHg
RR	30 /min
SaO ₂	90 % in room air
GCS	15

A photo of her right leg is shown.



i. Regarding the diagnosis

- a. State the MOST IMPORTANT finding in this photo. (1 mark)

Multiple and extensive, wide linear erythematous marks to the lower leg up to mid-thigh level

- b. What is the most likely diagnosis? (1 mark)

Chironex fleckeri (Box jelly fish) stings.

- c. If this patient had systemic envenomation as a complication of the most likely diagnosis, list three (3) possible abnormal findings on cardiovascular examination. (3 marks)

- Hypertension
- Hypotension
- Tachycardia
- Bradycardia (conduction blocks)
- Crepitations of LVF
- Elevated JVP

- d. List the two (2) MOST LIKELY causes of her hypoxia based on this scenario. (2 marks)

1. Pulmonary aspiration
2. Pulmonary oedema post envenomation

NB: chest injury sustained in the water such as pulmonary contusion or pneumothorax, and a medical cause such as asthma, are other possible correct answers, but not most likely based in this scenario, thus would not earn marks.

ii. Regarding her treatment

- a. State two (2) specific initial treatments of her leg (apart from analgesia). (2 marks)

1. Apply vinegar liberally to the entire area.
2. Remove any remaining tentacles with gloves after vinegar application.

- b. State four (4) clinical indications for the use of anti-venom. (4 marks)

- i. If patient develops cardiovascular instability or cardiac arrest (usually occurs soon after sting).
- ii. Ongoing severe local pain not controlled by IV narcotics
- iii. unconscious
- iv. hypoventilation
- v. difficulty with breathing, swallowing or speaking
- vi. severe pain
- vii. possibility of significant skin scarring

Notes:

- i) *Assesses analysis of photo and diagnosis. Note the formatting of i), which can be used for single mark questions. Note the terminology in the answer, and how the answer relates to both the question stem and the photo.*
- ii) *Assesses treatment. Again, note the prioritisation and the use of the word “state” which suggests a statement or phrase as an answer, as opposed to the word “list” which suggests 2-3 words maximum required for the answer.*

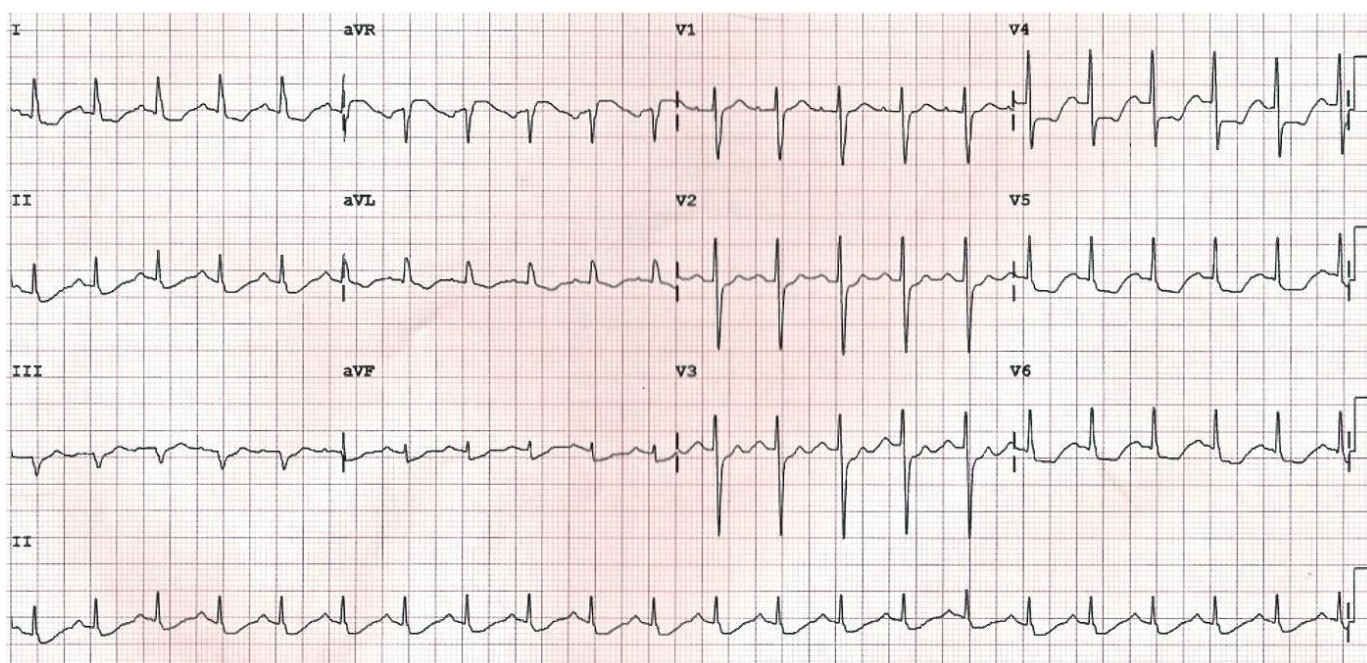
Question 3 (15 marks)

A 48 year old man self presents to your urban district emergency department. There is no on-site interventional cardiology service at your hospital. However, there is a hospital 90 minutes’ drive away with those services. He is complaining of severe, heavy, central chest pain with sweating and shortness of breath. The pain has been present for one hour and is causing him distress. The man weighs 80kg.

Initial vital signs are:

BP	95/55 mmHg
HR	125/min Regular
SaO ₂	92 % on 6Lpm via Hudson mask

His ECG on arrival is below.



- i. Based on this ECG and the clinical information:
- a. State three (3) abnormalities on this ECG (3 marks).
 1. Widespread anterolateral ST depression
 2. ST elevation avR
 3. Sinus tachycardia rate 120/min
 - b. State two (2) conclusions based on the ECG and the patient information given (2 marks).
 - Left main coronary artery occlusion (or Critical LAD stenosis with triple vessel disease) causing widespread ischaemia.
 - Patient is in cardiogenic shock
- ii. Complete the table below by giving four (4) drugs (apart from oxygen) that this patient should be given within the first half hour after his arrival. For each drug state further details regarding their dose and route. (8 marks)

Drug name (4 marks)	Further details (dose and route) (4 marks)
Aspirin	300mg po. (often given pre hospital)
Clopidogrel or other antiplatelet drugs	600mg po. Other antiplatelet drugs with appropriate doses can be inserted here.
Heparin	5000 units IV bolus followed by infusion based on 80kg weight
Fentanyl or other opioid	no greater than 0.5 mcg/kg IV boluses titrated to pain IV and to haemodynamics.
Tenectaplastase or other thrombolytic agents	Tenectaplastase bolus dose 45mg given IV. Other thrombolytic agents allowed with appropriate further details.
Adrenaline or other appropriate inotrope	IV infusion, start at 1-2mcg/min and titrate to effect.

NB: Metoprolol, or GTN in this situation, where the patient is in cardiogenic shock, are likely to cause significant harm and so if used in this table would invoke the zero-point rule resulting in zero marks for sub question "ii"

Notes:

- i. *Assesses investigation analysis. The shorter question is to allow for ECG analysis time. Other relevant ECG findings may be present and if candidates give them and are valid, examiner to award the mark. Note the sub question is split into parts a and b to further clarify the structure of the SAQ.*

- ii. *Assesses treatment. Note the clear instructions regarding “further details”. It’s good practice to include generic treatment like oxygen in the stem so candidates don’t waste time/space writing it in their answer. Also tests their ability to read the stem! The table in the exam only has four rows, rather than 6 here where the suggested answers are displayed.*

Question 4 (12 marks)

A 34 year old, G7P6, 38/40 pregnant woman delivers her baby in your resuscitation room. The baby is flaccid and not breathing.

- i. List the five (5) determinant components of the Apgar score (5 marks)
- Colour
 - Tone (muscle)
 - Heart rate
 - Respiratory effort
 - Reflex irritability
- ii. Regarding performing neonatal resuscitation in this baby:
- a. List three (3) immediate actions you would perform. (3 marks)
- Dry the baby - Provides stimulation to the baby to initiate respiratory effort.
 - Provide warmth to the baby
 - Suction the baby’s mouth under direct vision, especially for meconium
 - Provide positive pressure ventilation
- b. State four (4) IMPORTANT differences between newborn and adult resuscitation. (4 marks)
- Ventilatory resuscitation in neonates is with room air and without supplemental oxygen.
 - Chest compressions are commenced if the heart rate is 60bpm or below instead of if unresponsive
 - Warm environment is important as increased relative surface area makes the baby prone to hypothermia thus more important.
 - Positive pressure ventilation in neonatal resuscitation requires that the first breaths be slow to overcome collapsed lungs due to lack of surfactant
 - Vascular access in neonates can be via an umbilical vein catheter
 - Suction down ETT prior to ventilation if meconium staining

Notes:

- i. *Assesses a common clinical score used for assessment (medical expertise).*

- ii. *Assesses treatment. This is clearly a paediatric question. Paediatrics in the whole SAQ is about 20-25% of the total marks of the paper. These types of justification questions are aimed at determining whether candidates have a basic understanding of paediatric knowledge*

Question 5 (13 marks)

A 38 year old unkempt, clammy and tremulous man presents to the triage desk. He is agitated, shouting and uncooperative with simple instructions. He appears to have needle track marks on his arms.

- i. Using the categories provided in the table below, list nine (9) differential diagnoses for this man's presentation. Give a minimum of one (1) and maximum of three (3) diagnoses for each category. Your total list must include the three (3) MOST LIKELY in this patient. (9 marks)

Category	Diagnoses (9 marks)
Systemic disorder eg endocrine, metabolic, generalised infection.	Hypoglycaemia, hepatic encephalopathy, Wernicke's encephalopathy, thyroid storm, hypoxia, sepsis, other encephalopathy (includes vascular, uraemic etc)
Neurological	Head injury (bleed, concussion), intracranial pathology eg SAH, encephalitis/meningitis, post-ictal state/complex seizure, anti-NMDA receptor encephalitis
Drug related	Alcohol intoxication/withdrawal, amphetamines, cannabis, hallucinogens (e.g. PCP), serotonin syndrome, opioid withdrawal, benzodiazepine withdrawal, stimulant intoxication, neuroleptic malignant syndrome, anticholinergic syndrome, salicylate toxicity, baclofen withdrawal/intoxication,
Psychiatric	Schizophrenia, acute mania, acute situational crisis presenting as agitated behaviour, delusional disorder, psychotic depression, borderline personality disorder, other behavioural disorder

- ii. When assessing this patient's decision making capacity. State four (4) elements that MUST be present to determine that he has capacity to consent to, or refuse, treatment. (4 marks)

Decision-Making Capacity:

- recognises that there is a decision to be made,
- understands the relevant risks,
- understands the treatment options,
- understands the likely consequences of each option (i.e. risks, burdens, and benefits),
- can rationally manipulate the information to come up with a decision consistent with his or her values.

Definition: “sufficient understanding and memory to comprehend in a general way the situation in which one finds oneself and the nature, purpose, and consequence of any act or transaction into which one proposes to enter”

Notes:

- i) *assesses diagnostic reasoning. Note the specific instructions to the candidate regarding how many diagnoses per row, and the use of prioritisation within the answer. Note that the categories are given to the candidate, rather than the candidate creating their own categories, to assist the candidate to write the correct answers.*

- ii) *assesses professionalism knowledge. Note the bolded elements are required for full marks, thus if the candidate only writes two of the bolded elements in their full answer, the maximum mark awarded is 3. Most candidates will only get three of these, but four are requested to test for excellence. The definition is given in italics to inform examiners. Candidates are not required to quote this in their answer.*

<https://cbhd.org/content/competence-capacity-and-surrogate-decision-making>