

**CALHN Booklet 3  
Questions**

**SAQ 19 (18 marks)**

You receive a pre-alert from the ambulance service. They are bringing in a 78 year old male after fall from ladder with head and abdominal injuries.

The vital signs en route are

BP	85 / 60	mmHg
HR	130	bpm, irregular
GCS	10	

The ambulance arrives with the patient. Primary survey confirms the pre-hospital findings and you find a bleeding scalp wound.

He has had 1L of NaCl 0.9%.

- a. List four (4) of the most important classes of medications this patient might be taking that may alter your assessment or management of him? (4 marks)

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b. In the following table list four (4) potential causes for his hypotension AND the most effective way you would diagnose the cause whilst still IN THE RESUSCITATION ROOM (4 marks)

Cause	How to diagnose

c. List five (5) common components of a massive transfusion pack (5 marks)

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d. Apart from a normal INR/APTT list five (5) targets you would like to achieve to ensure adequate coagulation (5 marks)

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**SAQ 20 (15 marks)**

Whilst you are at triage, a 3 month infant is brought to ED by his father. His father states that the infant has been sleepy all day and is not interested in feeds. He also reports the baby has also had a recent cough and a fever.

The following observations are recorded

RR 14 /min and poor respiratory effort  
SpO2 84%on room air  
HR 50bpm  
BP 95/50mmHg  
Temp 34.8°C

The infant appears pale, quiet, and is unresponsive. Faint bruising is noted on the cheeks.

a. Describe your IMMEDIATE management of this infant (6 marks)

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b. An urgent CT of his brain is performed (**see prop booklet**). Describe the relevant findings on the selected images provided (4 marks)

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c. List two (2) other services that need to be informed because of these findings (2 marks)

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d. The patient’s mother arrives in the department, visibly distraught. Outline your approach to explaining your findings to her (3 marks)

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**SAQ 21 (12 marks)**

A 64-year-old lady, who recently emigrated from Sri Lanka, has presented with increasing shortness of breath and pleuritic chest pain on the background of 1 month of cough, intermittent fever and mild weight loss. She had recently completed a course of oral antibiotics from her GP.

Chest x-ray revealed a moderate left-sided pleural effusion. A diagnostic tap has been performed, with the results available below:

Macroscopic:	Straw yellow	Serum Results:		
Protein	44 g/L	Protein	66 g/L	
Albumin	20 g/L	Albumin	23 g/L	
Cholesterol	2.7 mmol/L	LDH	327 U/L	
LDH	255 U/L			
WCC	3987 x 10 <sup>6</sup> /L			
Polymorphs	28%			
Mononuclear	72%			

- a. List three (3) criteria that may help differentiate an exudate from a transudate effusion (3 marks)

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- b. List your three (3) most likely differential diagnoses based on the case and results above. (3 marks)

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- c. Apart from the pleural cell counts and biochemistry already performed, list three (3) additional investigations that are most likely to help determine the cause of the pleural effusion (3 marks)

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- d. List the three (3) most important aspects of the insertion of the needle into the pleural effusion to ensure a safe and effective therapeutic pleural tap. (3 marks)

Do NOT list items that relate to consent or sterility of the procedure.

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**SAQ 22 (13 marks)**

A 29 year old woman presents to the ED with a 6 hour history of mild abdominal cramping and vaginal bleeding for which she has used 2 sanitary pads over the 6 hours.

Her last menstrual period was 8 weeks ago and she usually has a 28 day cycle.

She is sexually active with a single long term partner and not using contraception as they are trying to start a family. She is concerned she is having a miscarriage.

Her vital signs are:

HR	78	bpm
BP	120/74	mmHg
T	37	°C
RR	18	/min

- a. List three (3) of the most important factors that would increase her risk of ectopic pregnancy (3 marks)

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b. Complete the table below detailing vaginal examination findings in miscarriage (5 marks)

Type of Miscarriage	Cervix	Products of conception passed
Threatened		
Incomplete		
Complete		
Inevitable		
Missed		

c. List 3 criteria on pelvic US you would need to satisfy to safely exclude ectopic pregnancy as the cause for her symptoms. (3 marks)

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d. List 2 criteria on pelvic US that would characterise a pregnancy of uncertain location (2 marks)

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**SAQ 23 (12 marks)**

A 35-year old man of no fixed address presents to the ED with a complaint of a painful red eye for the past three days associated with worsening visual acuity. He is not forthcoming with more history.

On initial inspection with the patient sitting up using normal light, you see the following **(see prop booklet)**

- a. List the four (4) MOST significant findings on the image (4 marks)

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- b. List the three (3) MOST important other aspects of the ocular evaluation which should be performed AND your expected findings (3 marks)

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c. List the two (2) MOST important next steps in managing this patient (2 marks)

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d. List three (3) possible complications of this if left untreated (3 marks)

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**SAQ 24 (10 marks)**

A 78-year old man is brought to your ED by ambulance after a carer found him drowsy in bed this morning at 0900.

The patient admitted to taking 10 X 10mg temazepam capsules and a glass of whisky at 2200 the night before with the intent of 'having a long sleep'. He denies ingestion of any other substances.

He has a past history of hypertension and hypercholesterolaemia and a left sided MCA infarct 8 months ago. He walks with the aid of a frame.

He is widowed and lives alone on a small farm on the outskirts of town.

- a. List five (5) risk factors he has for a subsequent successful suicide attempt in the following month? (5 marks)

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b. List five (5) ADDITIONAL risk factors for a subsequent suicide that you will be seeking when you assess him? (5 marks)

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**SAQ 25 (14 marks)**

You are assessing an 84-year old female who has presented complaining of feeling dizzy. On examination she has nystagmus.

- a. Describe four (4) features of her nystagmus that suggest a central cause for her vertigo (4 marks).

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- b. Complete the following table of expected findings for her if she has central a central cause for her vertigo (4 marks)

<b>NON-nystagmus component of the HINTS exam (2 marks)</b>	<b>Findings in central vertigo (2 marks)</b>

c. List six (6) other findings on history or examination that are NOT part of the HINTS examination that suggest a central cause of vertigo (6 marks)

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**SAQ 26 (11 marks)**

An 8-year old boy fell and injured his elbow.

- a. Name three (3) ossification centres of the elbow you would expect to see on radiographs in a normal 8 year old boy. (3 marks)

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- b. List four (4) radiological features that you should look for in a patient that suggest the presence of a supracondylar fracture of the humerus. (4 marks)

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c. List four (4) indications for reduction of a supracondylar fracture (4 marks)

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**SAQ 27 (12 marks)**

A 1 year old boy has been unwell with cough for a week. Today he was eating spaghetti when he seemed to gag and have difficulty breathing over a period of 1 minute. His mum reports he is now clingy with a 'strange cough'.

The following vital signs are recorded:

HR	120	bpm
BP	90/50	mmHg
SpO2	90%	on room air
RR	24	/min
T	37.5	°C
Weight	10	kg

He is alert and responsive and comfortable in his mother's arms.

On physical examination he has multiple petechiae around his eyes, and an intermittent cough. He has mild indrawing of intercostal muscles and mild tracheal tug, but no stridor.

- a. Provide an explanation for the physical examination findings (not including the vital signs) (3 marks)

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Chest X-rays are performed (**see props booklet**).

- b. List three (3) significant findings on the CXR (3 marks)

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c. What is your diagnosis? (1 mark)

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After a short coughing spell the infant becomes cyanosed and unresponsive. No chest movement is obtained despite good self-inflating bag-and-mask ventilation. The child remains cyanosed and no oxygen saturations can be obtained. Chest thrusts have been given without effect.

d. Outline your management of the infant's airway (5 marks)

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