

Candidate name: \_\_\_\_\_

## **PAH 2017.1 trial SAQ paper**

### **PART 2**

**Questions 10 - 18**

**1 hour**

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**Q10 (12 min)**

A 4 year old boy has been brought to your ED with a 2 day history of increasing vomiting and lethargy.

He has had a venous blood gas taken. The result is provided in the **PROPS BOOKLET**.

1. Give the 2 most relevant findings regarding the patient's acid-base status. For each, provide the formula you have used. (4 marks)

Conclusion	Formula

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2. State the underlying clinical condition. (1 mark)
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3. Give a brief explanation for each of the following abnormalities. (3 marks)

Abnormality	Explanation
Low Sodium	
High Potassium	
Low Chloride	

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4. List 5 other investigations you might perform on this child, providing the clinical indication for each. (10 marks)

Investigation	Clinical indication

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The patient has the following vital signs:

GCS	15	
Pulse	180	/min
BP	80/40	mmHg
RR	35	/min
O2 saturation	99%	room air
Temperature	36.5	degrees

The patient appears poorly perfused.

**5. State 4 specific elements of your fluid and electrolyte therapy. (4 marks)**

- 1) \_\_\_\_\_  
\_\_\_\_\_
- 2) \_\_\_\_\_  
\_\_\_\_\_
- 3) \_\_\_\_\_  
\_\_\_\_\_
- 4) \_\_\_\_\_  
\_\_\_\_\_

**6. State 2 other components of your management of this patient. (2 marks)**

- 1) \_\_\_\_\_  
\_\_\_\_\_
- 2) \_\_\_\_\_  
\_\_\_\_\_

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**Q11**

A 42 year old woman has presented to the ED with heavy vaginal bleeding.

Her serum beta-HCG is negative.

1. List 5 differential diagnoses for the bleeding. For each, list one feature of your clinical assessment that would suggest the diagnosis. **(10 marks)**

Diagnosis	Assessment feature

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After complete assessment, no obvious cause has been found.

The patient's vital signs are normal.

2. List 3 different pharmacological options for management of this problem. (3 marks)

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**Q12**

A 26 year old man has been brought to the ED after falling from a horse.

A CT scan has been performed. One image is provided in the **PROPS BOOKLET**.

- 1. List 3 radiological features of the major injury demonstrated on this image. (3 marks)**

1) \_\_\_\_\_

\_\_\_\_\_

2) \_\_\_\_\_

\_\_\_\_\_

3) \_\_\_\_\_

\_\_\_\_\_



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2. List 3 options for management of this injury. For each option, state the indication for its use. (6 marks)

Management option	Indication

3. List 4 complications of this injury. (4 marks)

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**Q13**

A 25 year old woman has presented to the ED with a 3 day history of jaw pain and swelling.

A clinical photo is provided in the **PROPS BOOKLET**.

- 1. State the most likely diagnosis. (1 mark)**

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- 2. List 2 supporting features from the image provided. (2 marks)**

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On arrival, the patient has the following vital signs:

GCS	15	
Pulse	120	/min
BP	130/75	mmHg
O2 saturation	99%	room air
Temperature	38.5	degrees

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**3. State 3 key components of your management.**

**(3 marks)**

1) \_\_\_\_\_

\_\_\_\_\_

2) \_\_\_\_\_

\_\_\_\_\_

3) \_\_\_\_\_

\_\_\_\_\_

After some time in the ED, the patient has developed stridor and has become cyanotic. Attempts to ventilate and intubate the patient have been unsuccessful.

The patient is sedated and paralysed.

You have decided to perform a cricothyroidotomy.

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4. List 6 key steps in performing a cricothyroidotomy via Seldinger technique. (6 marks)

1) \_\_\_\_\_

\_\_\_\_\_

2) \_\_\_\_\_

\_\_\_\_\_

3) \_\_\_\_\_

\_\_\_\_\_

4) \_\_\_\_\_

\_\_\_\_\_

5) \_\_\_\_\_

\_\_\_\_\_

6) \_\_\_\_\_

\_\_\_\_\_

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**Q14**

You are managing a patient who has been brought to the ED after a large overdose of multiple drugs.

You are concerned that the patient might have serotonin toxicity.

- 1. List 8 drugs known to cause serotonin toxicity. Each drug must be from a separate class. (8marks)**

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- 2. List 8 clinical features associated with serotonin toxicity. (8 marks)**

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**Q15**

A 3 year old boy has been brought to the ED after falling from the top bunk bed at home. He sustained a brief loss of consciousness after the fall.

His mother is worried about a potential brain injury and is questioning the need for a CT scan.

1. Give the name of a decision instrument for performing CT in head injury which has been validated in the paediatric population. (1 mark)

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2. List 6 indications for CT head as per the instrument you have named above. (6 marks)

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You feel that CT imaging is indicated.

**3. State 4 key components of your preparation for safely performing the CT scan. (4 marks)**

1) \_\_\_\_\_

\_\_\_\_\_

2) \_\_\_\_\_

\_\_\_\_\_

3) \_\_\_\_\_

\_\_\_\_\_

4) \_\_\_\_\_

\_\_\_\_\_

**Q16**

A 20 year old man has presented to the ED after falling on to his left hand while playing basketball.

His x-rays are provided in the **PROPS BOOKLET**.

- 1. List 2 abnormalities on the x-rays. (2 marks)**

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- 2. List 4 steps in your management of this patient. (4 marks)**

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- 3. List 2 early complications of this injury. (2 marks)**

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4. List 5 late complications of this injury.

(5 marks)

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**Q17**

A 25 year old woman has presented to the ED with pleuritic chest pain.

You are considering the diagnosis of pulmonary embolism.

- 1. List and justify 6 investigations you could perform to assist in your diagnosis or management of this patient. (12 marks)**

Investigation	Justification

**Q18**

A 75 year old man is planned to receive a 2 unit packed red blood cell transfusion in your ED. He has recurrent anaemia due to myelofibrosis. His vital signs are normal.

- 1. List 4 acute immunological complications of the transfusion that might occur in the first 24 hours. (4 marks)**

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- 2. List 3 acute non-immunological complications of the transfusion that might occur in the first 24 hours. (3 marks)**

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One of the nurses has informed you that the patient has become unwell shortly after the transfusion was commenced.

His vital signs are:

GCS	15	
Temperature	39.5	degrees
HR	120	/min
BP	100/65	mmHg

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3. List 3 actions you would take in this situation. (3 marks)

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4. List 3 possible complications of recurrent red blood cell transfusions. (3 marks)

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