# Department of Emergency Medicine

Princess Alexandra Hospital

# FELLOWSHIP TRIAL EXAMINATION 2018.1

# WRITTEN EXAMINATION

# SHORT ANSWER QUESTIONS

EXAMINATION TIME: 3 HOURS

# **DIRECTIONS TO CANDIDATES**

- 1. The booklet is divided in to three parts
  - Each part is composed of 9 questions
- 2. Each mark is of equal weight
- 3. Write your name on the front page of each question paper
- 4. Write your initials on each subsequent page of the question paper
- 5. Answer each question in the space provided
- 6. Cross out any errors completely
- 7. Do not begin the exam until instructed to do so
- 8. No examination papers or materials to leave the room

Candidate initials: \_\_\_\_\_

# PAH 2018.1 trial SAQ paper

PART 1

Questions 1 – 9

1 hour

# Q1 (12 min)

The ambulance service has called to alert you about the impending arrival of a critically unwell patient. You will be receiving a 25 year old man who has been stabbed once to the left side of his anterior chest with a large knife.

His vital signs with the ambulance are:

GCS	14	E4 V4 M6
Pulse	135	/min
BP	85/45	mmHg
O2 sats	98%	15L O2 via non-rebreather mask

The patient is reported to be agitated.

1. List 4 critical interventions you would prepare to perform in the ED. For each intervention, give the clinical indication for its use. (8 marks)

Critical intervention	Clinical indication

Upon arrival, a chest x-ray has been performed. The x-ray is provided in the **PROPS BOOKLET.** 

2. List the main pathology evident in the chest x-ray. (1 mark)

- 3. List 2 supporting radiographical features. (2 marks)
- 1) \_\_\_\_\_ 2) \_\_\_\_\_
  - 4. List 2 other possible traumatic causes of the patient's hypotension. For each, state the supportive findings on examination or investigation. (4 marks)

Cause of hypotension	Examination or Investigative finding

You have determined that an intercostal catheter needs to be inserted for management of this patient's injuries.

5. List 4 possible complications of the procedure and a safety step you would include in your technique to avoid each complication. (8 marks)

Complication	Safety step

A 45 year old man with known HIV has presented to the ED with shortness of breath.

1) List 2 specific laboratory findings that would support a diagnosis of Acquired Immunodeficiency Syndrome (AIDS). (2 marks)

1)	
_	
2)	

2) List 4 AIDS defining illnesses. (4 marks)

1) _	
2) _	
3) _	
4) _	

Your assessment is consistent with pneumonia and severe immunodeficiency. The patient is moderately unwell and will require admission to hospital for intravenous antibiotics.

3) List 3 key pathogens that must be considered in this situation. List the antibiotic you will choose to treat each pathogen. (6 marks)

Pathogen	Antibiotic		

A 28 year old woman has presented to your ED with left lower quadrant abdominal pain.

Her vital signs are:

GCS	15	
Pulse	80	/min
BP	110/75	mmHg

You are considering the differential diagnosis of ectopic pregnancy.

#### 1) List 5 risk factors that would increase the risk of ectopic pregnancy. (5 marks)

1)	
2)	
3)	
4)	
5)	

A bedside urine qualitative beta-HCG test has returned positive.

As part of your further assessment, you have elected to perform a quantitative serum beta-HCG level and a trans-vaginal USS.

2. Complete the following table by indicating the relevance of the serum beta-HCG level to the interpretation of the USS and subsequent management. (4 marks)

Serum b- HCG level	Relevance to USS interpretation	Relevance to management
Less than 1500 mIU/mL		
More than 1500 mIU/mL		

A 2 year old girl has been brought to the ED with a rash over her torso.

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

## 1. List 4 features of this rash. (4 marks)

1)	 	
2)		
3)		
-, 4)		
-1	 •	

# 2. What is the most likely diagnosis? (1 mark)

3. List 2 common infectious causes for this condition. (2 marks)

1) _	 	 	
2) _			

4. List 4 non-infectious causes for this condition. (4 marks)

1)	 	
2)		
-,		

5. State your management of this condition. (1 mark)

A 45 year old woman has been referred to the ED with hyperthyroidism, based on abnormal thyroid function tests (TFTs) performed in the community.

#### 1. List 4 features of your examination that would be consistent with thyrotoxicosis.

	(4 marks)
1)	 
2)	
3)	
4)	

2. Complete the table by indicating the expected TFT results in primary and secondary hyperthyroidism. (2 marks)

	T4	TSH	
Primary hyperthyroidism			
Secondary hyperthyroidism			

3. List 3 different causes of primary hyperthyroidism. For each, give a discriminatory examination finding that would suggest its presence. (6 marks)

Cause	Examination finding

You have been approached by a trainee who says they are being bullied by one of the other consultants within your ED.

1. Provide a definition of bullying. (2 marks)

2. List 3 examples of bullying that might occur in the workplace. (3 marks)

1)	 	 
2)	 	 
3)	 	 

	3.	3. State 6 steps in your management of this situation. (6 marks)				
1)						
2)						
4) <sub>.</sub>						
6) <sub>.</sub>						

A 35 year old man has presented to the ED with a painful, red right eye for the past 2 days.

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

# 1. List 4 abnormalities in the image provided. (4 marks)

1)	
2)	
3)	
4)	
, וי	

# 2. What is the most likely diagnosis? (1 mark)

3. List 3 risk factors for this condition. (3 marks)

1)	
2)	
3)	

# 4. List 3 complications of this condition. (3 marks)

1)	
2)	
3)	

A 70 year old man has been brought to the ED with chest pain and dizziness.

His ECG is provided in the **PROPS BOOKLET**.

1. Give your interpretation of the ECG. (1 mark)

2. List 4 abnormalities from the ECG to support your interpretation. (4 marks)

1)	
2)	
3)	
4)	

Candidate initials: \_\_\_\_\_

3. Complete the table by listing 3 possible causes of this problem. For each, provide a feature of your assessment (history, examination or investigation) that would support it as the underlying cause. (6 marks)

Cause	Assessment feature	

4. List 2 medications you may use to manage this patient, including doses. (2 marks)

1)	 	 	 
2)			

A 9 year old boy has presented with a painful left wrist after falling off a swing in the playground.

His x-ray is provided in the **PROPS BOOKLET**.

# 1. List 3 descriptive radiographical features of the injury. (3 marks)

1)_	
2)_	
3)_	

Your registrar is concerned about the possibility of median nerve injury, and is asking you for advice about how to test the function of the median nerve.

2. List 3 examination features that would suggest injury to the median nerve at the level of the wrist. (3 marks)

1)	 	
2)	 	
3)	 	

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The median nerve function is normal.

#### 3. State 5 important components of your management of this case. (5 marks)

1)		 
2)		
5)		 