| Candidate name: | |
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| Carialdate Harrie. | |

Fellowship Practice Paper 1

PART 3

Questions 19 - 27

1 hour

SAQ 19 (double question)

A 26 year old woman presents with 3 days of lethargy and epigastric pain. She is 28 weeks pregnant.

Her vital signs are:

| Temp | 37.3 | degrees |
|----------------------------|--------|--------------------|
| Heart Rate | 110 | beats per minute |
| Blood Pressure | 140/90 | mmHg |
| RR | 26 | breaths per minute |
| O ₂ Saturations | 95% | room air |

Her blood results demonstrate anaemia with thrombocytopaenia and elevated tranaminases and bilirubin. You suspect that she may have HELLP Syndrome.

| List three important differential diagnoses for her presentation. (3) | 3 marks |
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| In addition to the findings provided, list six examination or investigative findings the would support a diagnosis of HELLP syndrome or pre-eclampsia. (6 marks) | nat |
| (1) | |
| (2) | |
| (3) | |
| (4) | |
| (4) | |
| (5) | |
| (6) | |
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| List five life-threatening complications of pre-eclampsia and HELLP syndrome. (5 marks) |
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| (1) |
| (2) |
| (3) |
| (4) |
| (5) |
| Whilst being assessed, the patient suffers a generalised tonic-clonic seizure 4. Describe your specific management of her seizure. Provide doses of any therapies used and state your clinical end-points(4 marks) |
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| The seizure is terminated effectively. The patient's blood pressure is now 180/110. |
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| 5. Describe your key management priorities for this patient. Be specific with any therapies administered.(8 marks) |
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SAQ 20

A 40 year old woman presents to ED complaining of weakness and difficulty walking. On initial assessment she is found to have loss of power in both legs, but normal upper limb and cranial nerve function.

1. List 3 key differential diagnoses you would consider for her presentation. For each differential, provide supportive historical and/or examination features. (9 marks)

| Differential diagnosis | Supportive Historical and Examination Features |
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| You decide to perform a lumbar puncture as part of your workup. | |
| 2. Outline the key aspects of consent as they apply in this situation. | (3 marks) |
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SAQ 21

Your registrar has called you to resus to help with a patient. An 18 year old male presented in diabetic ketoacidosis, complicated by a prolonged generalised seizure. He has been intubated for airway protection and is currently being sedated and mechanically ventilated, awaiting ICU review. His weight is 80kg.

A blood gas is provided in the PROP BOOKLET.

1. Complete the following table for calculations that can be made from the above blood gas.(10 marks)

| Variable | Formula Used | Result | Clinical Implication in this case |
|--------------------------|--------------|--------|-----------------------------------|
| Expected CO ₂ | | | |
| A-a gradient | | | |
| Anion Gap | | | |
| Delta Ratio | | | |
| Corrected Sodium | | | |

| Your registrar asks for guidance to address his respiratory status. | | | | | |
|--|--------------------|------------|---------------------|--|--|
| Currer | ntly the ventilato | r is set a | as follows: | | |
| | Mode | SIMV-VC | | | |
| | FiO ₂ | 1.0 | | | |
| | TV | 400 | mls | | |
| | Resp Rate | 12 | breaths/min | | |
| | PEEP | 5 | cm H ₂ O | | |
| | PSupp | 5 | cm H ₂ O | | |
| You notice the patient is making some spontaneous respiratory efforts which are triggering the high pressure alarms. 2. Give your strategy for improving this patient's ventilation, stating your desired endpoints.(5 marks) | | | | | |
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| You are notified by the public health unit of an impending aircraft arrival from West Africa. A suspected outbreak of Ebola Virus Disease (EVD) amongst health care workers has led to a large scale air evacuation. Your hospital is set to be one of several who will accept arrivals from this flight. The flight is scheduled to arrive in the next few hours. | | |
|--|-----------|--|
| List and justify the different stakeholders you would engage in your strateg managing the possible surge of EVD patients. | y for | |
| | (5 marks) | |
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SAQ 22

| List the key principles of managing patients with suspected Ebola Virus Dis Emergency Department. | sease in the (4 marks) |
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| You are told that the plane has landed and 10 patients are en route to your hospit department is currently full with many patients awaiting admission or ward bed all 3. List four strategies you might use to prepare your department for these arri | ocation. |
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| (3) | |
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| (4) | |
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| SAQ 23 |
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| A 38 year old man presents with rapid palpitations for 30 mins. He feels lightheaded but denies any chest pain. ECG demonstrates a wide-complex tachycardia. |
| List six ECG findings that would support a diagnosis of Ventricular Tachycardia (VT) (6 marks) |
| (1) |
| (2) |
| (3) |
| (4) |
| (5) |
| (6) |
| List four features you would seek on history that would support a diagnosis of VT (4 marks) |
| (1) |
| (2) |
| (3) |
| (4) |
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You diagnose Ventricular Tachycardia and elect to cardiovert the patient electrically.

3. State four key steps you would undertake in electrically cardioverting this patient in ED. Be specific with any therapies used.(4 marks)

| (1) | | | |
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| (2) | | | |
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| SAQ 24 | |
| An 18 year old girl is brought to ED after a collapse. She has a history of anorexia ner | vosa. |
| Her ECG is provided in the PROPS BOOKLET. | |
| What is the most important abnormality shown on her ECG? | (1 mark) |
| 2. List one other associated abnormalities present on her ECG | (1 mark) |

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| 3. | State four key investigations you would perform in the ED on this patient. | Provide |
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| | your rationale for each investigation.(8 marks) | |

| Investigation | Rationale | |
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You explain to the patient that she will need to be admitted for further treatment and to address her eating disorder. She tells you she is going to discharge against your advice. Her parents plead with you to keep her in hospital "for her own good".

| 4. | . List the conditions would need to be present for you to be able to detain an | d treat |
|----|--|---------|
| | her against her expressed wishes? | |

(4 marks)

| (1) | | | |
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| (2) | | | |
| (3) | | | |
| (4) | | | |

| SAQ 25 | | |
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| | elopmental milestones is brought in by his moth king on his right leg for the last 24 hours. | er, who |
| On initial examination, the child apright leg. | opears unsettled and will not walk or bear weigh | nt on his |
| You are worried the child may have | ve septic arthritis of the hip joint. | |
| 1. List five important alternate | differential diagnoses. | (5 marks) |
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| | may aid in confirming or excluding septic arthrination. Provide rationale for each investigation. | |
| Investigation | Rationale | |
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Your assessment indicates that septic arthritis is unlikely. The child is still not weight bearing but appears well and comfortable.

| 3. List five criteria that need to be met to safely discharge this child. | (5 marks) | |
|---|-----------|--|
| (1) | | |
| (2) | | |
| (3) | | |
| (4) | | |
| (5) | | |

| SAQ 26 |
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| A 50M presents with central chest pain radiating through to his back for 30 minutes. He is sweaty and pale and agitated. He has a background of hypertension for which he has not been treated |
| You are considering a diagnosis of a thoracic aortic dissection. |
| List three specific examination findings that would support a diagnosis of thoracic aortic dissection(3 marks) |
| (1) |
| (2) |
| (3) |
| 2. For each of the following investigative modelities, indicate adventages and |

2. For each of the following investigative modalities, indicate advantages and disadvantages specific to thoracic aortic dissection.(8 marks)

| INVESTIGATIVE MODALITY | ADVANTAGE(S) | DISADVANTAGE(S) |
|-------------------------------|--------------|-----------------|
| CT Aortogram | | |
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| Trans Thoracic Echocardiogram | | |
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| The patient's blood pressure is 180/120 and pulse rate is 100/min (regular). | | |
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| Detail your emergency department management of the patient's haemodynamic state. State your end points.(6 marks) | | |
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| | 1. List five accepted clinical indications for CT Brain imaging for this child.(5 marks) |
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| (4) | |
| (F) | |
| (5) | |

Your registrar has come to see you for help with a patient. They are seeing a 2 year old boy, who was brought to ED by their parent after they fell off the playground equipment at the

SAQ 27

park, hitting their head.

| The child appears well and interactive, with a forehead abrasion but no other injuries. are told the child had one vomit after the fall, but is now tolerating fluids without intervention. | You |
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| Despite your registrar's reassurances, the child's parent is demanding a CT scan. | |
| 2. Outline the key components of your response to this parent. | (5 marks) |
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