

The Prince Charles Hospital
The Royal Brisbane & Women Hospital
Redcliffe Hospital
Caboolture Hospital

Metro North Hospitals ACEM Fellowship Trial Examination

2017.2

Short Answer Questions

SAQ Paper

Questions

Booklet Two

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ACEM Fellowship Trial Examination

2017.2

Short Answer Questions

SAQ Paper

Booklet two

Examination time: 180 Minutes

Direction to Candidates:

- 1- All questions must be attempted
- 2- Answer each question in the space provided
- 3- Enter your name for each question
- 4- This paper has been divided into 3 parts, each part is to be completed in 60 minutes

Booklet one:	SAQ 1-9
Booklet two:	SAQ 10-18
Booklet three:	SAQ 19-27
Props Booklet:	All props

SAQ 10 (9 Minutes)
(Total 18 marks)

Candidate name:

A 65 year old man cuts the lateral aspect of his right lower leg on a rusty piece of wire while gardening. He washes the area with fresh water from his garden shed kettle, and wraps the wound in an old cloth, before seeing his GP the next day.

- I. List 5 types of wound that are more likely to favour the growth of tetanus (ie. are considered 'tetanus prone')**

(5 Marks)

Even though the next day his GP considers the wound to be “*just a nasty scratch really*” and wipes the area down with disinfectant then changes the dressing, the GP does believe it is ‘tetanus prone’. He gives the man a tetanus toxoid vaccine, but wonders if intramuscular tetanus immunoglobulin (TIG) is also needed?

- II. List 3 indications for giving TIG to a patient in addition to tetanus vaccine.**

(3 marks)

Three days later the man returns to his GP concerned that his leg is infected. The GP suspects necrotising fasciitis.

III. List seven (7) features on history and examination that would support a diagnosis of necrotising fasciitis.

(7 Marks)

The man is transported urgently to your ED. He looks unwell, and you agree that he has likely **necrotising fasciitis**.

IV. List three (3) priorities in his immediate management.

(3 Marks)

SAQ 11: (6 Minutes)
(Total 12 Marks)

Candidate Name:

A 3-year-old boy is brought in to your ED by his mother with concerns that he may have swallowed a foreign body. The child is sitting on his mother's lap, alert.

- I. List four (4) signs of airway obstruction from a swallowed foreign body that you would look for in this child.**

(4 marks)

(See props booklet for larger scale X-ray)

A lateral neck x-ray is taken and is pictured below.



II. State the relevant features of the x-ray. (2 marks)

Shortly after your assessment, the child becomes agitated and has a vomit. He subsequently becomes apnoeic and unresponsive.

III. State your management by filling in the following table. (6 marks)

<i>If unsuccessful progress to...</i>
<i>If unsuccessful progress to...</i>
<i>If unsuccessful progress to...</i>

SAQ 12: (6 Min)

Candidate Name:

(12 Marks)

A 74 year old female patient presents to your ED with central chest pain, dyspnoea and feeling lightheaded. This came on 1 hour ago whilst resting on the couch at home.

Her background history includes a pacemaker which was inserted for slow AF.

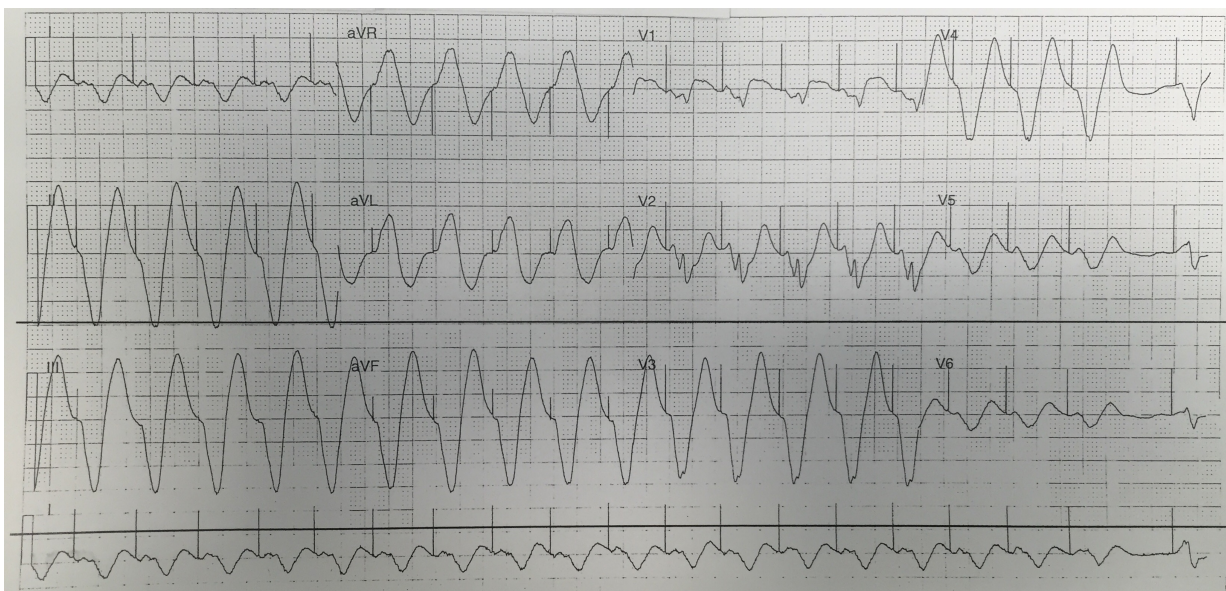
Her vital signs are:

GCS 15/15

BP 85/50

SpO2 94% RA

Her ECG is shown below: (See props booklet for ECG please)



I. State the key findings of her ECG and how they may be relevant to her presentation. (4 marks)

1
2
3
Diagnosis:

**II. Outline your immediate management priorities for this patient in the ED.
(6 marks)**

**III. What is the role of a magnet in managing pacemaker dysfunction?
(2 marks)**

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SAQ 13:(6 minutes)

Candidate Name:

(Total 12 marks)

You have been approached by a senior clinical nurse in your ED informing you of a problem with a trainee. She is concerned that the trainee has an alcohol problem. On multiple occasions, the trainee has posted about his alcohol use on social media. She is concerned that there may also be other recreational drug use. Several other nurses have reported that he is abrupt, rude and does not communicate his plans. This registrar is an early phase advanced trainee who recently completed his primary examinations.

- I. List 4 examples of conduct that would fulfil Mandatory Reporting requirements to the Medical Board. (4 marks)**

- II. You have organised to meet with this trainee to further discuss this issue. List 5 main points you would cover in this meeting. (5 marks)**

III. Following this meeting, you have identified that your department does not have a guideline on mandatory reporting.

**List six (6) important aspects required when developing a guideline.
(3 marks, 0.5 each)**

SAQ 14: (6 minutes)

Candidate Names:

(Total marks 12)

You are the ED consultant on duty in an urban district hospital with obstetric and paediatric services available.

A 29 year old pregnant female who is 32 weeks pregnant (G1 P0) presents to your department with a 2 day history of headache, blurry vision, lethargy and upper abdominal pain.

She has so far had an uncomplicated pregnancy and has been receiving antenatal care in your hospital.

The patient's vital signs on arrival are as follows

HR 105 per minute

BP 150 / 95 mmHg

RR 20 per minute

Oxygen Sats 97% on room air

One of your registrars has already picked up the patient and arranged for some bloods and the patient's early blood results are as follow:

Parameter	Patient Value	Normal Adult Value
Hb	76 G/L	(115 - 160)
Platelets	65 x 10 ⁹ / L	(140 - 400)
INR	2.1	(0.9 - 1.3)
APTT	62 seconds	(25 -38)
LDH	704 U/L	(110 - 250)
Total Bilirubin	58 micromol/L	(< 20)
Urea	28 mmol/L	(3 - 8)
Creatinine	324 micromol/L	(70 - 120)
Potassium	5.0 mmol/L	(3.2 - 4.5)

I. List four (4) most likely differential diagnoses.

(4 Marks)

II. List four (4) more investigations you think are warranted for this patient and state the clinical reasoning. (4 marks)

Investigation (0.5 Mark for each)	Clinical Reasoning (0.5 Mark for each)

After you have reviewed the blood results with your registrar you head promptly to review the patient and to inform her of the blood results.

As you enter the cubicle the patient has a witnessed generalised tonic clonic seizure. The patient is moved to resus cubicle for full non-invasive monitoring during this process:

III. List four (4) immediate clinical response to this situation. (4 Marks)

SAQ 15 :(6 minutes)

Candidate Name:

(Total 12 Marks)

Your local wilderness agency is requesting assistance in review of their medical protocols for a mountaineering expedition. They need to provide a brochure to give to potential clients who wish to trek up the nominated mountain (6000m).

I. List four (4) risk factors for Acute Mountain Sickness (AMS)

(4 Marks)

II. List four (4) symptoms of High Altitude Cerebral Oedema (HACE)

(4 Marks)

III. List four (4) treatment options required for patients with HACE

(4 Marks)

SAQ 16: (6 Minutes)

Candidate Name:

(Total marks 12)

A 40 year old woman was just intubated in your department following a severe exacerbation of her asthma. She weighs approximately 60kg. Your registrar comes to you seeking advice as the ventilator keeps alarming.

The patient's vital signs are:

HR 120 bpm
BP 90/60 mmHg
Sats 100%

You find the ventilator settings below

Tidal Volume 600ml
Pressure support 10
PEEP 10
FiO2 100%
Rate 16
I:E ratio 1:2

**I. Which ventilator settings would you alter from the above settings?
(4 marks)**

Ventilator settings	Alterations

II. List two (2) other steps you could perform to optimize her ventilation

(2 marks)

The patient becomes hypotensive with a BP 80/50 mmHg ten minutes after intubation

III. What is your immediate action? (1 mark)

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IV. List five (5) possible reasons for the hypotension (5 marks)

**SAQ 17: (6 Minutes)
(Total Marks 12)**

Candidate Name:

A 28 year old office worker presents by ambulance following a conscious collapse at work. She had been unwell at work that day.

On arrival, her vital signs are:

HR 160 -190

BP 190/110

Temp 39.5

RR 30

Sats 92% on RA

GCS 14/15

BSL 11.6

She is confused, tremulous and anxious.

There is mild pitting oedema

I. List five (5) differential diagnoses other than Thyroid storm?

(2.5 Marks)

II. The husband arrives and reports a recent history of a neck lump which is due to be investigated. Closer examination reveals a diffuse multi-nodular goitre. What five (5) underlying conditions can cause thyrotoxicosis?

(2.5 Marks)

III. What are three (3) clinical findings with thyrotoxicosis? (3 Marks)

IV. List four (4) immediate treatment priorities with drug names and doses? (4 Marks)

SAQ 18 (9 minutes)
(Total 18 Marks)

Candidate name:

You are the consultant working in an urban district ED. The ambulance bring in a 14 year old girl on an involuntary order after her mother found her in the bathroom with some empty pill packets.
She weighs 40kg.

Observations:

HR 105
RR 21
Sats 97% RA
BP 105/60
GCS 13/15 E3V4M6

The ambulance also bring in some empty pill packets, which were all prescribed yesterday. The missing pills include:

20 x 20mg Citalopram
20 x 300mg Quetiapine
50 x 25mg Amitriptylline
24 x 500mg/30mg Paracetamol/Codeine

I. List four (4) key aspects of your risk assessment based on what she has taken?

(4 marks)

II. For the table below, List three (3) key investigations that you would perform to help refine your risk assessment, including your reasoning

(6 marks)

Investigations	Reasoning

III. What specific toxidrome would you assess this patient for? (1 mark)

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IV. List four (4) clinical features consistent with this toxidrome (4 marks)

Further information

She clinically deteriorates, with GCS now 9/15 and BP 80/40

V. List four (4) key treatments you would provide, including details: (4 marks)
