

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

Metro North Hospitals and SCUH

ACEM Fellowship Trial Examination

2018.2

SAQ Paper

Questions only

Booklet One

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ACEM Fellowship Trial Examination

2018.2

Short Answer Questions

SAQ Paper

Booklet one

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 1 (9 Minutes)
(Total 18 marks)

Candidate name:

You are the Emergency Consultant on call overnight and you receive a phone-call from your ED registrar. There is a 2 year-old boy with severe croup who has been brought in by his parents. Your registrar is concerned that the boy requires intubation. Anaesthetics are not on site overnight.

List 4 differentials for stridor in the paediatric population (other than croup): (4 marks)

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1. State 3 indications for intubation in this scenario. (3 marks)

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2. What interventions can be used to support this child while preparing for intubation? List three (3) (3 marks)

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3. What equipment and drugs will you select for intubation? (6 marks)

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4. Give 4 anatomical airway differences in the paediatric population in comparison with the adult airway: (2 Marks)

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**SAQ 2 (6 Minutes)
(Total 12 Marks)**

Candidate Name:

You are a new FACEM and your director has asked you to look into access block and overcrowding in your emergency department.

Questions:

- 1. State the definition of access block. (2 marks)**

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- 2. State the difference between access block and ED overcrowding. (2 marks)**

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- 3. List 4 markers of ED overcrowding. (4 marks)**

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4. List 4 adverse effects of ED overcrowding.

(4 marks)

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SAQ 3 (6 Minutes)
(Total 12 marks)

Candidate Name:

A 21-year-old male presents to a tertiary Emergency Department after suffering an injury to his right eye at work while hammering metal.

His eye photo is included in the props booklet:



Questions:

1. List 3 abnormalities on the image

(3 marks)

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2. List 2 relevant negative findings

(2 mark)

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3. State what further investigation you would perform and justify your choice.

(2 marks)

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4. State 5 immediate management steps.

(5 marks)

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**SAQ 4 (6 Minutes)
(Total 12 Marks)**

Candidate Name:

A 5-day old neonate is brought in to ED by his mother after being discharged from hospital following a normal vaginal delivery.

His mother reports poor feeding for the last few hours and she has noticed an increasing yellow discoloration of his skin:

His vital signs are:

HR 160
RR 32
CRT 2 -3 sec
AVPU

The child is jaundiced.

Questions:

1- List 5 likely causes for his jaundice

(5 marks)

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2- List 4 red flags during history and examination that warrant admission to the hospital.

(4 marks)

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3- List 3 investigations required in ED and provide a rationale for each one justify each one of them. (3 marks)

| Investigations | Rationale / Justification |
|----------------|---------------------------|
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**SAQ 5 (6 minutes)
(Total 12 Marks)**

Candidate Name:

A mother brings in her 2-year old son who she suspects may have swallowed a button battery some time over the last hour whilst visiting at a friend's house.

The child had been playing on the carpet when the mother suddenly noticed he had dismantled a small alarm clock and the battery was nowhere to be found.

The boy looks well and is happy playing in the assessment cubicle.

1. List your immediate management steps

(4 marks).

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2. Name two indications for immediate endoscopy and battery removal

(2 marks).

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After assessing the patient, you determine that there are no indications for immediate endoscopic removal. You consider managing the patient conservatively at home.

3. Name three other conditions required for conservative management of button battery ingestion

(3 marks).

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4. State three specific instructions you would give as part of your discharge advice

(3 marks).

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

Candidate Name:

A 36-year-old male electrician is brought into your ED post electrocution from exposure to a 11,000-volt power line. He was thrown against a metal panel 8 metres away and noted to have no signs of life on scene.

Bystander CPR and ambulance resuscitation managed to gain ROSC after a down time of approximately 20 minutes.

His initial cardiac rhythm on scene was ventricular fibrillation.

On arrival to your ED this patient is intubated and ventilated with the following vital signs:

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|----------------|------------------------------------|
| Heart rate | 84bpm |
| Blood Pressure | 145/90 |
| Resp Rate | 15 breath per min, hand ventilated |
| O2 Sats | 98% on 15L via BVM |

Questions:

- 1. Name four factors related to the nature of electrical exposure that can influence the severity of an electrical injury.**

(4 Marks)

| Factor Influencing Injury Severity |
|------------------------------------|
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2. List four types of injuries that can be sustained in this patient and provide an example of each type. (4 Marks)

| Injury Type | Example |
|-------------|---------|
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3. List 4 indications for the use of telemetry in the Emergency Department for a patient with a suspected electrical injury, without cardiac arrest.

(4 Marks)

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**SAQ 7: (6 Minutes)
(Total 12 Marks)**

Candidate Name:

An elderly female is referred to your Emergency Department by her GP for review of new onset Atrial Fibrillation:

Observations:

GCS 15/15
BP 110/60
Sat 95% on RA
RR 18 per min

1. List 4 potential causes for Atrial fibrillation.

(4 Marks)

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Your registrar asks you whether to aim for rhythm or rate control .

2. List 2 factors which would make you consider rhythm control in this lady and 2 factors which would make you consider rate control

(4 Marks)

Rhythm Control

| Factors |
|---------|
| 1 |
| 2 |

Rate Control

| Factors |
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| 1 |
| 2 |

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3. Your registrar asks you whether she needs to be anticoagulated.

List 4 factors you would consider for the above decision.

(4 Marks)

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SAQ 8: (6 Minutes)
(Total 12 Marks)

Candidate Name:

A 41-year-old male returns from a business trip and a few days later develops a painful left knee.

He is finding it very difficult to walk due to pain.

This is his first episode of joint problems. He is systemically well, there is no history of trauma and no other symptoms.

He is afebrile, with normal vital signs.

A clinical photo of his knee is included in the props booklet:



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1. Describe the photo.

(2 Mark)

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2. List 4 differential diagnoses for the above presentation.

(4 Marks)

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3. Under an aseptic approach, an USS guided joint aspirate is taken. Complete the following table with the expected pathology findings.

(4 Marks)

Analysis of synovial fluid

| Diagnosis / fluid type | Findings | | |
|------------------------|------------------------|--------------------------|-------|
| | Macroscopic appearance | WCC (10 ⁶ /L) | % PMN |
| Normal | | | |
| Non-inflammatory | | | |
| Inflammatory | | | |
| Septic | | | |

4. The synovial fluid result suggests septic arthritis. What antibiotics do you give while awaiting culture results? (2 Mark)

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**SAQ 9: (9 Minutes)
(Total 18 marks)**

Candidate Name

A 35-year-old man has been intubated in your department overnight after ingestion of an unknown quantity of alcohol and methadone.

The indication for intubation was airway protection secondary to a low GCS. He has a normal BSL, and a CT brain performed shortly after intubation has also been reported as normal.

He has spent the night in the ED as no ICU beds were available. You are considering extubation of the patient in your department.

- 1. List 6 clinical criteria that must be met to ensure this patient is suitable for extubation in the ED? (6 marks)**

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- 2. List five non-clinical criteria must be met to ensure safe extubation of this patient in your department. (5 marks)**

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3. List three pieces of equipment you would have immediately available prior to extubation of this patient in the ED. (3 marks)

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The patient is successfully extubated. He currently has adequate respiratory function and is GCS 15.

4. State your 4 subsequent steps in the management of this patient. (4 marks)

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