South East Queensland Fellowship Written Mock Exam

2019.2

3rd October 2019

Book Two

SAQ 10 to 18

With thanks to the FACEMs and the Emergency departments of

Sunshine Coast University Hospital

Caboolture Hospital

Redcliffe Hospital

The Prince Charles Hospital

Royal Brisbane & Women's Hospital

Long question 18 Marks

A 5 month old baby presents to ED with a history of increasingly noisy breathing.

His vital signs are:

GCS 15 E4 V5 M6

Pulse 170 beats/min

CRT 2 seconds

BP 90/50mmHg

O₂ Sats 99%FiO₂ 0.21

Temp 36.4 °C

BSL 4.2 mmol/l

1. List 5 differences between adult and paediatric airways (5 marks)

2. List three (3) causes of stridor and DESCRIBE the nature of the stridor that would be associated with each cause (3)

Cause	Description of noise

3.	When assessing an infant with stridor LIST five (5) important clinical features and their significance
4.	As you are assessing the patient their stridor worsens. They become lethargic and cyanosed. LIST 5 actions you would take to safely secure the airway (5 marks)

12 Marks

A 54-year-old man presents with palpitations and is light headed. He has a wide complex tachycardia on ECG.

1. List the four steps in Brugada criteria to distinguish VT from SVT (4 marks)

Step Name	

2. State 8 other features on an ECG that are more indicative of VT than SVT in WCT.

(8 marks = 1 per feature)

Number	State Feature
1	
2	
3	
4	
5	
6	
7	
8	

12 Marks

An 18 month old male presents to your regional Emergency Department three hours following the accidental ingestions of one of his Grandmothers medications whilst in her care. The child is asymptomatic and has a normal clinical examination. He weighs 12kg.

His vital signs are:

GCS 15 E4 V5 M6

Pulse 120 beats/min

CRT 2 seconds

BP 90/50mmHg

O₂ Sats 99%FiO₂ 0.21

Temp 37 °C

BSL 4.2 mmol/l

1. List four factors on history that form part of the toxicological risk assessment for this patient's presentation (4 marks)

2. Given the child is well and asymptomatic 3 hours post ingestion, please LIST the four (4) medication groups you would be most concerned about the child ingesting? (4 marks)

The child becomes increasingly confused. REPEAT observations are outlined below.

GCS 13 (E4 V4 M5)

Pulse 150 beats/min

CRT 2 seconds

BP 110/65mmHg

O₂ Sats 99%FiO₂ 0.21

Temp 37.0°C

3. Please state two important investigations and justify your choice for this child (4 marks)

12 Marks

You are the ED consultant in a small regional ED with 20 treatment spaces, including 2 resuscitation cubicles. There is a heatwave event occurring in your region.

You receive a call from ambulance on site at a local music festival, stating that they are currently treating 30 patients with heat related illness.

There are 4 critically unwell patients with heat stroke who are already enroute to your ED.

1. Using the headings provided, outline the preparations you will make in your ED in anticipation of the arrival of this group of 30 patients. (4 marks)

2. List the 3 criteria that are required for a diagnosis of heat stroke. (3 marks)

3. List 3 pharmacological agents that may increase the risk of developing heat related illness. (3 marks)

4.	on their arrival to your ED. (2 marks)

12 Marks

You are looking after a patient in your Resuscitation area with breathing difficulties. Your registrar is keen to have a discussion with you regarding the use of Non-Invasive Ventilation (NIV) in the ED.

1.	List 4 indications for the use of NIV in the ED. For each indication you
	choose, state which mode of NIV you would use by putting it in the
	appropriate column. (4 marks)

BiLevel PAP (BiPAP)	
	BiLevel PAP (BiPAP)

2. List 4 absolute co	ontra-indications for	the use of NIV in E	ED.(4 marks)

3. List 4 major complications of NIV in the ED.(4 marks)

12 Marks

A 6 week old male child presents to the emergency department with a 12-hour history of bilious vomiting, irritability and 2 x episodes of loose stool.

His vital signs are:

AVPU	Alert
Pulse	165 beats/min
CRT	3 seconds
BP	85/40mmHg
O ₂ Sats	99%FiO ₂ 0.21
Temp	37.2 °C
Weight	4200grams

1. In the table below, please list four (4) most likely differential diagnosis and the clinical signs you would expect to find on examination. (8 marks)

Differential diagnosis	Clinical signs

2. Please state the three (3) most important investigations for this child. (3 marks)

An abdominal X-ray was performed. There is one (1) image below.



3. Please state the sign demonstrated on the abdominal X-ray and the most likely diagnosis (1 mark)

X-ray sign:

Diagnosis:

12 Marks

A 32 year old woman presents to the emergency department after giving birth in the car on the way to the hospital. She is G5P5 at 38 weeks gestation. The pregnancy was complicated by gestational diabetes that was managed by diet. Her most recent ultrasound showed a foetus that was large for gestational age. At arrival, she is pale and has persistent, brisk vaginal bleeding. Her vital signs are

BP 95/52 mmHg

Pulse 106 bpm

RR 18 /min

SpO₂ 98 % in room air

Temp 37.0 °C

GCS 15

1. What are the two most likely causes of post-partum haemorrhage in this patient? (2 Marks)

2. Describe your management of the third stage of labour. (2 Marks)

 List 4 non-pharmacological and 4 pharmacological measures that could be used to control haemorrhage, in order of escalation. (8 Marks) 		

12 Marks

In early January, a 23 year old man presents with a fever after returning from a group tour in far north Queensland. He is usually well, and fully vaccinated on the Australian immunisation schedule. His vital signs are

GCS 15

Pulse 108 bpm

BP 110/65 mmHg

RR 22/min

SpO2 97% in room air

Temp 38.2 °C

1. List four (4) features of history that will assist you to determine the source of fever (4 Marks)

2. List 3 specific examination findings you will seek, and 2 potential infections that may be indicated by each. (6)

The following laboratory results are obtained.

Reference range

Hb	124	130 - 180 g/L
WCC	15.7	4.5 - 11.0 x 10 ⁹ /L
Neuts	9.8	1.8 – 7.7 x 10 ⁹ /L
Platelets	32	150 – 400 x 10 ⁹ /L
Albumin	31	33 – 47 g/L
AST	431	10 – 45 U/L
ALT	32	65 – 45 U/L
ALP	124	30 – 110 U/L
GGT	196	10 – 70 U/L
Total Bili	32	< 20 µmol/L
Urea	7.9	3.0 – 8.0 mmol/L
Creatinine	85	60 – 110 μmol/L
Glucose	5.4	3.0 – 5.5 mmol/L

- 3. What is the MOST LIKELY infectious diagnosis based on these laboratory results? (1 Mark)
- 4. Identify one other possible infectious diagnosis. (1 Mark)

12 Marks

A 60yr old man presents to your non-tertiary emergency department stating he 'walked into something' 30 minutes ago sustaining a left eye injury. He refuses to answer further questions as to the exact mechanism. He undergoes an urgent CT scan of his head and face.

His CT is found in the Props Booklet

1. List THREE abnormalities on his CT scan (3 marks)

List FOUR examination findings you would look for on your assessment (4 marks)

3. State your ongoing management for this man (5 marks)