ID NUMBER:					

# University Hospital, Geelong Emergency Medicine Trial Fellowship Exam Short Answer Questions (SAQ)

#### Week 27

#### **DIRECTIONS TO CANDIDATE**

- 1. Answer each question in the space provided in this question paper.
- 2. Do not write your name on this question paper.
- 3. Enter your examination number in the space below.
- 4. Cross out any errors completely.
- 5. Do not begin the exam until instructed to do so.
- 6. Do not take examination paper or materials from this room.
- 7. The booklet binder may be removed during the exam.

# QUESTION & ANSWER BOOKLET

# Question 1 (18 marks)

An 8 year old girl presents with an asthma exacerbation.

a. State one (1) KEY pro and one (1) KEY con for each of the listed delivery systems for salbutamol, for this patient. (6 marks)

Delivery system	Pro/ con
	(6 marks)
MDI with spacer	Pro
	Con
Nebulised	Pro
	Con
Intravenous	Pro
	Con

# **Question 1 (continued)**

This 8 year old girl presents with her mother to the emergency department with a 2 hour history of shortness of breath and wheeze. She has a past history of asthma with one ward admission and one previous ICU admission, both 2 years previously.

Her usual medications are Salbutamol (Ventolin) PRN and Fluticasone Propionate (Flixotide) 100 mcg BD.

She has received no prehospital care.

Her initial observations are:

GCS	15	
HR	120	/min
RR	40	/min
SpO <sub>2</sub>	93%	RA
Temp	37.0	°C

Moderate accessory muscle use

Talking in phrases.

b. List two (2) medications that you would use in the first 20 minutes of your care. State dose and route. (6 marks)

	Medication (2 marks)	Dose (2 marks)	Route (2 marks)
1.			
2.			

# Question 1 (continued)

She rapidly becomes drowsy and exhausted after your initial treatment.

c. List two (2) medications, other than oxygen and salbutamol, that you would commence on this patient. Provide dose and route for each. (6 marks)

	Medication (2 marks)	Dose (2 marks)	Route (2 marks)
1.			
2.			

# Question 2 (12 marks)

		-			
	4 year old ma al signs on ar			ving a sing	le stab wound to the chest.
		ВР	165/80	mmHg	5
		HR	125	/ min	(sinus rhythm)
		RR	26	/ min	
		O2 sats	97%	RA	
		GCS	15		
pat	ient rapidly b	confirms cardiac pecomes unconsc 60/20 mmHg HR	ious.		y after the ECHO is performed the
		our (4) factors in emergency thora	· · · · · · · · · · · · · · · · · · ·		re associated with a good outcome
1.					
2.					
3.					
4.					
	b. List f	our (4) specific pr	ocedures that	emergenc	y thoracotomy allows. (4 marks)
1.					
Τ.					
2.					
۷.					
2					

# Question 2 (continued)

You consider performing Emergency thoracotomy in the Emergency Department.

	c. List four (4) cons to performing this procedure on this patient. (4 marks)					
1						
2						
3						
4						

# Question 3 (12 marks)

A 21 year old man is brought to the emergency department by ambulance after an Motor Vehicle rollover where he was the unrestrained driver.

His observations are:

BP	80/50	mmHg
HR	50	beats/min
GCS	8	(E2, M4, V2)

O2 Saturation 91 % on 15 L/min O2 via non-rebreather mask

# A Cervical spine is taken- refer to the prop booklet page 2.

	a.	State five (5) abnormal findings shown in this xray. (5 marks)
1		
2		
3		
4.		
<del>-</del>		
5		
	b.	Is this injury a stable or unstable injury? (1 mark)
	c.	State one (1) justification for your answer in "b". (1 mark)

# Question 3 (continued)

	d.	List five (5) LIKELY complications of/ or problems with cervical immobilisation for this patient. (5 marks)
1		
2		
3		
4		
5.		

# Question 4 (13 marks)

a. List one (1) clinical feature of each stated Hydrofluoric Acid exposure. (4 marks)

	Exposure	Clinical feature (4 marks)
1.	Dermal	
2.	Inhalational	
3.	Ingestion	
4.	Systemic	

# Question 4 (continued)

b. List three (3) different techniques for the administration of the antidote to Hydrofluoric acid exposure. List one (1) pro and one (1) con for the each technique. (9 marks)

	Technique (3 marks)	Pro (3 marks)	Con (3 marks)
1.			
2.			
3.			

a. List four (4) medical/surgical conditions that require low altitude in the setting of

# Question 5 (12 marks)

	retrieval. (4 marks)	
1		
Z		
3		
4		
	<ul> <li>Other than pressurisation issues, list four (4) specific problems with fixed wing a a modality for retrieval. (4 marks)</li> </ul>	ıs
1		
2		
3		
4		

# **Question 5 (continued)**

	c.	List four (4) specific problems with rotary wing (helicopter) as a modality for retrieval. (4 marks)
1		
2		
3		
4		

a. List the three (3) criteria that are required in the CDC (Centre for Disease Control

# Question 6 (11 marks)

	and Prevention) definition of an AIDS case. (3 marks)
1	
2	
3	

# **Question 6 (continued)**

b. Complete the table below with respect to HIV infection, by listing one (1) clinical feature and CD4 count range for each stage of HIV infection. (8 marks)

World Health Organisation clinical stage	Clinical feature (4 marks)	CD4 count range (4 marks)
1		
2		
_		
3		
-		
4		

# Question 7 (12 marks)

A 75 year old presents with a painful right eye. You suspect acute angle glaucoma as the most likely diagnosis.

a.	Other than age, list three (3) risk factors for the development of acute angle glaucoma. (3 marks)
b.	Other than the presence of a risk factor or previous history, list three (3) historical features that would be consistent with a diagnosis of acute angle glaucoma. (3 marks)
	·
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# **Question 7 (continued)**

d. Other than analgesics, list three (3) drugs that you may commence for this patient. (3 marks)	

# Question 8 (12 marks)

	a.	List three (3) pros to the practice of assigning Australasian Triage Scale 2 to all adult patients who present with chest pain. (3 marks)
1		
2		
3.		
	b.	List three (3) cons to the practice of assigning Australasian Triage Scale 2 to all adult patients who present with chest pain. (3 marks)
1.		
2.		

# **Question 8 (Continued)**

As duty consultant in a tertiary ED, you have just arrived for handover to a late shift on Monday evening. The department is full. There are no monitored or general cubicles available and the waiting room is full. Your medical staff are currently occupied with several high-acuity cases. 3 ambulance cases have just arrived, and are waiting to be triaged in the corridor. Of these, one patient looks to be in severe pain, the other two appear short of breath.

c. State three (3) options for the care of these 3 ambulance patients. Provide one (1) pro or con for each of these options (state whether a pro or a con). (6 marks)

	Option for care (3 marks)	Pro or con (State whether pro or con) (3 marks)
1.		
2.		
3.		

# Question 9 (17 marks)

A 64 year-old man presents to your Emergency Department with dyspnoea and palpitations. His past history includes COPD, chronic renal failure, obesity, IHD and hypertension. Vital signs on presentation are:

BP	88/60	mmHg
RR	20	bpm
O <sub>2</sub> sats	88%	RA
GCS	15	
Temperature	36	°C

# An ECG is taken- refer to the prop booklet page 3.

	a.	State six (6) abnormal ECG findings. (6 marks)
1		
2		
3		
4		
5.		
J		
6.		

# Question 9 (continued)

# A venous blood gas is performed- see props booklet page 4.

b. List three (3) KEY abnormalities in this blood gas. State one (1) point to demonstrate the significance of each abnormality for this patient. (6 marks)

	Abnormality (3 marks)	Significance (3 marks)
1.		
2.		
3.		

# Question 9 (continued)

	C.	List five (5) medications that you may prescribe for this patient. (5 marks)
1		
2		
3		
4.		
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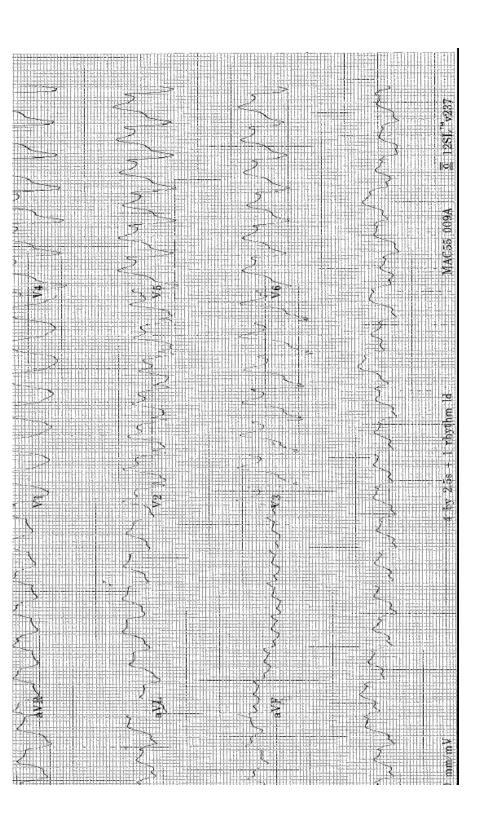
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**PROP BOOKLET** 

# Question 3



# Question 9



# Question 9 (continued)

Venous blood gases		Reference range		
рН	6.9	(7.35 – 7.45)		
pCO2	60 mmHg	(35 – 45)		
pO2	28 mmHg			
HCO3	10 mmol/L	(22 – 33)		
Base Excess	-10	(-3 – +3)		
K+	8.6 mmol/L	(3.5 - 5.5)		