

NSW FELLOWSHIP EXAM COURSE

NORTHERN SYDNEY HOSPITALS

PRACTICE SAQ PAPER 2017.2

DECEMBER 2017

1. This is a TWO hour practice exam
2. There are 2 separate booklets of 9 questions each. Each book should be completed in 1 hour
3. Props (images, ECGs) are reproduced in the accompanying Props Booklet
4. The first question in each booklet is a double question. Otherwise the questions are of similar value
5. Answer each question in the space provided on the examination paper
6. Please write your name at the top of each page

Candidate number _____

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BOOK ONE

QUESTION 1 – DOUBLE QUESTION (21 marks)

With regard to skin and soft tissue infections

- i. List 5 non-infectious conditions that masquerade as unilateral leg cellulitis and indicate the symptoms/signs and/or tests that help to differentiate the condition from cellulitis (10 marks)

Cellulitis mimic	Differentiating symptoms/signs/investigations

- ii. List 3 choices of oral antibiotic which cover *Streptococcus pyogenes* **and** *Staphylococcus aureus* (3 marks)

iii. Briefly explain the pharmacodynamic advantage conferred by combining a beta-lactam antibiotic with:

(a) Probenecid (2 marks)

(b) Clavulanic acid (2 marks)

iv. Regarding the management of abscesses, write short notes on the role of the addition of an antibiotic to simple incision and drainage of the abscess (4 marks)

QUESTION 2 (15 marks)

A 65 year old male presents with severe sudden onset left flank pain. He is pale, sweaty and agitated.

Vital signs: GCS 14
Automated BP 160/145mmHg, palpable brachial pulse (but not radial)
P 130 bpm
RR 27 bpm
Central CR 5 sec

- i. List 4 differential diagnoses (4 marks)

- ii. Why is there discrepancy between palpable pulses and automated BP and what is your action (3 marks)

- iii. You suspect a ruptured abdominal aortic aneurysm. List 2 pros and 2 cons for ultrasound and CT imaging (8 marks)

QUESTION 3 (15 marks)

A 5 year old is brought to the Emergency Department with worsening asthma for the last 4 hours.

- i. What are four clinical features of life threatening asthma (4 marks)

- ii. List your immediate pharmacological management (3 marks)

- iii. Despite appropriate escalation of management the patient's condition deteriorates over several hours and they are intubated in the ED. Complete the following table (5 marks)

Parameter	Setting	Justify
Respiratory Rate		
Tidal volume		
Peak inspiratory pressure		
PEEP		
I:E ratio		

- iv. After connecting to the ventilator the patient suddenly deteriorates becoming progressively hypotensive and tachycardic. Give three possible causes (3 marks)

QUESTION 4 (16 marks)

You are the senior doctor in charge of a tertiary ED at 3pm when Ambulance Control state that there has been an explosion nearby.

- i. What 5 pieces of information are important to obtain from Ambulance Control (5 marks)

- ii. List 7 steps that you should perform after receiving this phone call (7 marks)

iii. Patients start arriving rapidly on foot and by ambulance. Using a triage sieve, classify (red, yellow, green) the following patients (4 marks)

1. Female 40s, lying on ambulance stretcher, GCS 14, RR 33, BP 105/80, P 110

2. Male 30s, limping up to triage unassisted, GCS 15, RR 26, BP 95/50, P 105

3. Female 20s, sitting in a wheelchair, obvious compound tibial fracture, GCS 15, RR 28, P 120

4. Male 50s, lying on stretcher, GCS 13, RR 25, BP 105/60, P 110

QUESTION 5 (12 marks)

Precipitous deterioration can occur around the time of intubation in several specific situations.

- i. Explain the pathophysiology of the cardiovascular collapse that can occur at induction of a patient with **severe aortic stenosis** (4 marks)

- ii. Cardiovascular collapse can occur at the induction, intubation and ventilation of a patient with **severe metabolic acidosis**. Outline measures you would take to prevent this from occurring (4 marks)

- iii. Explain the pathophysiology of the cardiovascular collapse that can occur at induction, intubation and ventilation of a **severe asthmatic** (4 marks)

QUESTION 6 (14 marks)

A 62 year old man presents with a cold, painful, numb left leg. You suspect an acute ischaemic limb.

- i. List 4 features on **history** that would suggest acute arterial embolism rather than thrombosis as the cause (4 marks)

- ii. List 4 features on **examination** that would suggest acute arterial embolism rather than thrombosis as the cause (4 marks)

- iii. Name 2 revascularisation strategies (2 marks)

iv. Name 4 post reperfusion complications that may arise (4 marks)

QUESTION 7 (15 marks)

You are a retrieval doctor tasked to a scene of a suspected electrical injury of a technician working at an electrical substation. On approach, he can be seen 5 metres from the potential source and is wet from the overhead rain. The patient is groaning and you note a burn on his right hand, holes in the soles of his shoes, and partially torn and charred clothing.

- i. Outline 5 initial management priorities at the scene (5 marks)

- ii. List 4 features of the history or examination that suggest significant injury (4 marks)

- iii. Write short notes on 3 limb and 3 systemic complications that will need to be considered in the ED (6 marks)

QUESTION 8 (13 marks)

A 72 year old female presents with jaw pain and inability to close her mouth after yawning.

- i. What is the most likely diagnosis (1 mark)

- ii. List three risk factors for this (3 marks)

- iii. List three mechanisms that can cause this problem (3 marks)

- iv. Describe two techniques for reduction (no need to describe analgesia/anaesthesia) (6 marks)

QUESTION 9 (15 marks)

IMAGES FOR THIS QUESTION ARE IN THE PROPS BOOKLET – IMAGES A-F

- i. Which of the M-mode images (**IMAGE A or B**) demonstrates a pneumothorax? (1 mark)

- ii. Why is the other image NOT consistent with pneumothorax (4 marks)

- iii. Which of the M-mode IVC images (**IMAGES C or D**) is consistent with a tension pneumothorax? (1 mark)

- iv. Why is the other image NOT consistent with pneumothorax? (4 marks)

v. Which image (**IMAGE E or F**) is consistent with pleural sliding? (1 mark)

vi. Why is the other image NOT consistent with pleural sliding? (4 marks)
