

UNIVERSITY OF CAPE TOWN  
STELLENBOSCH UNIVERSITY  
Faculty of Health Sciences

MMed Emergency Medicine  
Final Examination

MPhil Emergency Medicine  
Written Examination

13 August 2009

**Clinical Short Answer Paper II**

1300 – 1600

**No Calculators and/or Electronic Equipment/Aid  
will be allowed**

This paper consist of **FIFTEEN** short answer questions. All questions are to be answered. Each question is worth 10 marks.

Answer Questions in the following books:

<b>Questions</b>	<b>Book</b>
1- 4	1
5-7	2
8-10	3
11-15	4

If you need to continue an answer in another book, do not mix answers in one book other than labeled above.

## PAPER II

### Question 1

With regards to the radiographic appearance of the elbow in children

- a) List the ossification centres in the order of appearance and give the approximate age at which each can be seen on plain radiography of the elbow. (6)
- b) You are seeing an 8yr old with a history of a fall onto an outstretched hand and a painful swollen elbow with limitation of movement. When assessing the plain radiograph – you see an olecranon ossification centre but no medial epicondyle ossification centre.
  - i) What is the likely diagnosis (2)
  - ii) What nerve injury may be associated with this type of elbow injury? (1)
  - ii) What is your management plan for this patient? (6)

[15]

### Question 2

A 6 year old child is brought into your unit with flame burns to chest, abdomen and legs involving 20% Body surface area (BSA).

- a) Calculate the volume of resuscitation fluid required. (5)
- b) Calculate the volume of maintenance fluids required. (5)
- c) Discuss the types of fluid required and how it should be administered. (5)

[15]

### Question 3

Write short notes on Haemolytic Uraemic Syndrome.

- a) Pathophysiology and causative agents (5)
- b) Typical age of onset and clinical presentation (5)
- c) Differential diagnosis and management (5)

[15]

### Question 4

Discuss Sudden Infant Death Syndrome (SIDS) including definition, age groups, risk factors, prevention and patient education. (15)

### Question 5

Discuss the differential diagnosis and management of pv bleeding in the first trimester of pregnancy. (15)

### Question 6

- a) List the indications for thrombolysis in Acute Myocardial Infarction? (5)  
b) Discuss the differences in timing of lysis, the risk/benefit ratio for lysis in Anterior vs Inferior MIs, and young vs older patients (>75yrs). (10)
- [15]

### Question 7

A young man presents to your Emergency Centre with a urethral discharge. Discuss your management of this patient including drug dosages. (15)

### Question 8

Discuss the concept of Hypotensive Resuscitation including definition, the clinical uses, benefits and limitations. (15)

### Question 9

You have requested a CT abdomen in a young boy with abdominal pain. Discuss how you would explain to the parents the risks associated with radiological interventions, including numerical representation of risk. (15)

### Question 10

A patient presents with Pulmonary Oedema **not** thought to be of cardiac origin. Write short notes on

- a) your differential diagnosis (6)  
b) Management of this patient (9)
- [15]

### Question 11

a) Describe a scoring system to establish which deliberate self-harm patients present an increased risk of future suicide attempts. (10)

b) How would you differentiate which of these patients need admission and assessment? (5)

[15]

### Question 12

A 45yr female complains of central chest pain for the last week. She had similar episodes before. The rest of the history does not reveal any risk factors for cardiovascular disease. The clinical examination is normal and there are no ischemic changes on her ECG. All cardiac markers are negative.

a. Define "non-cardiac" chest pain (2)

b. List 6 possible causes of her chest pain (3)

c. Outline the diagnostic workup and management for 3 of the causes you listed above. (9)

d. Does she have an increased risk to develop a cardiac event in later years? (1)

(1)

[15]

### Question 13

Discuss the different ventilation strategies (including tidal volume, rate, pressures and I:E ratio) in patients with

a) "Normal" lungs (5)

b) Asthma (5)

c) ARDS (5)

[15]

### Question 14

Tabulate any 4 types of incomplete spinal cord injuries under the following headings:

a) aetiology (4)

b) clinical signs (9)

c) prognosis (2)

[15]

### Question 15

You are evaluating a young male after he sustained blunt trauma to the chest.

- a) Write short notes on "Commotio Cordis" (myocardial contusion) (3)
- b) Discuss the role of various cardiac enzymes to diagnose blunt cardiac injury (4)
- c) Outline your management of this patient (8)

[15]

Total = 10 x15 marks