



THE COLLEGES OF MEDICINE OF SOUTH AFRICA

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Intermediate Examination for the Fellowship of the
College of Maxillo-Facial and Oral Surgeons of South Africa

19 July 2019

Paper 2

General Principles of Surgery

(3 hours)

All questions are to be answered. Each question to be answered in a separate book (or books if more than one is required for the one answer)

- 1 A 20-year-old man presents to your institution with intra-abdominal bleeding from a ruptured spleen, severe pelvic fracture with right sided sacro-iliac joint widening, and bilateral femur fractures. He has a Blood pressure of 70/50 and a pulse of 120b/min. He remains unresponsive to a bolus of 2 litres of ringers lactate
- a) How would you resuscitate this patient further? (8)
 - b) Briefly discuss your approach to endpoints of resuscitation. (6)
 - c) Tabulate advantages and disadvantages of crystalloids and synthetic colloid resuscitation fluid. (6)
 - d) How would you manage him further if he develops peaked T waves on ECG? (5)
- [25]
- 2 A 30-year-old unrestrained male driver is involved in an high impact collision. He is bleeding profusely through the mouth and nose due to the multiple facial and nasal fractures. He has a Glasgow Coma scale of 5/18. Chest x-ray and ultrasound of the abdomen are all within normal limits
- a) Discuss different options to secure the airway in a stepwise approach. (8)
 - b) Discuss different options available to control the above bleeding. (6)
 - c) Discuss the role of Mannitol in this patient (emphasising the pitfalls as well). (6)
 - d) Briefly discuss the role of hypothermia and craniectomy. (5)
- [25]
- 3 A 36-year-old woman develops an extensive soft tissue sepsis and abscess to the left side of the neck (extending to the floor of the mouth) with an fluctuant centre on Zone 2 of the neck. She has a temperature of 40°C and BP of 75/30. She was diagnosed with Type 1 diabetes mellitus and has been using insulin since the age of 16. Ultrasound confirms soft tissue oedema due to sepsis, complicated by 9cm X 5cm collection. She was recently admitted for a severe pneumonia that required intravenous antibiotics
- a) Describe your pre-operative workup for this patient. (8)
 - b) Which antibiotics would be relevant at this stage? (4)
 - c) Discuss the different mechanisms in development of antibiotic resistance. (5)
 - d) She develops diarrhoea in ICU after a week's course of antibiotics; discuss your approach, and treatment options to this new development. (8)
- [25]

- 4 A previously healthy 50-year-old female has had surgery to drain a submandibular abscess. 6 hours post-surgery she has yet to pass urine. How would you determine the cause of her anuria and discuss how you would manage each cause. [25]
- 5 A 25-year-old male has had a mandibular reconstruction with posterior iliac crest graft. His pre-operative haemoglobin was 15 g/dl, 24 hours post-surgery it is 10 g/dl and 48 hours post-surgery it is 7 g/dl. Discuss how you would investigate this patient's problem and what would be required to correct any problems you identify. [25]
- 6 You have just completed surgery to release a Temporomandibular joint ankylosis with a costochondral graft. As the patient is being reversed the oxygen saturation drops and anaesthetist advises that he cannot ventilate the patient. Discuss how you would make a diagnosis and how each diagnosis would be managed. [25]