



THE COLLEGES OF MEDICINE OF SOUTH AFRICA
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Sample MCQ question for the
College of Surgeons of South Africa

Principles of the surgical specialty disciplines

1 General Surgery

A 64-year-old patient presents to Surgical Emergency with right iliac fossa pain for one week. On examination the patient's heart rate is 102 beats per minute and has a core body temperature of 38.5 degree Celsius. Furthermore, there is localized tenderness at McBurney's point and clearly palpable 10cm by 8cm tender mass. Blood result reveals C-reactive protein (CRP) level of 234 and urgent ultrasound of the abdomen is reported as being normal. Which one of the following management options would currently be the next most appropriate step in the management of this patient?

- a) Intravenous antibiotics followed by urgent appendicectomy through McBurney's point.
- b) Intravenous antibiotics followed by urgent diagnostic laparoscopy.
- c) Intravenous antibiotics followed by urgent exploratory midline laparotomy.
- d) Intravenous antibiotics followed by urgent percutaneous drainage.
- e) Trial of intravenous antibiotic(s) alone.

Answer: e

2 Vascular

A 20-year-old patient is brought to theatre for exploration of a penetrating injury to neck complicated by haemorrhagic shock. Evaluation while the patient is already on the operation table reveals that the injury is in Zone II of the neck on his left side. Which one of the following approaches (incisions) to the neck would be the most plausible to start with to explore the neck to control the source of bleeding in this patient?

- a) Clamshell incision.
- b) Left posterolateral thoracotomy.
- c) Lower McFee incision (collar incision).
- d) Median sternotomy.
- e) Vertical incision along sternocleidomastoid muscle.

Answer: e

3 General Surgery or Gynaecology

Your Surgical Unit has been consulted to assess jaundice in a 14-year-old female who is recovering in the intensive Care Unit 10 days after total abdominal hysterectomy. On examination she looks acutely ill, is jaundiced, her pulse rate is 124/min and has core body temperature of 40 degree Celsius. Her most recent blood tests reveal the following: haemoglobin = 7.5g/dl, WCC = 29, platelets = 43×10^9 , total bilirubin of 67 with direct bilirubin of 42, alkaline phosphatase = 276, AST = 63, ALT = 74, haptoglobin and LDH are normal. A review of her notes confirms massive blood transfusion and that she has already had two relook laparotomy for sepsis. Which one of the following is the most plausible explanation of her jaundice?

- a) Ascending cholangitis.
- b) Haemolysis of transfused blood.
- c) Ischaemic hepatitis.
- d) Ongoing sepsis.
- e) Resorption of pelvic haematoma.

Answer: c

4 General Surgery

A 28-year-old male is re-admitted to a surgical ward for management of dehydration. History reveals that he had just been discharged following right hemi-colectomy for necrotic caecum. Blood results on this admission shows: s-[Urea] = 44.9mmol/l, s-[Creatinine] = 541mmol/l, s- [Corrected total calcium] = 2.88mmol/l, s- [Phosphate] = 1.0mmol/l and s- [Albumin] = 39g/dl. After fluid 72 hours of fluid therapy everything corrected except s-calcium. Which one of the following is the most likely diagnosis?

- a) Familial hypercalcaemic hypocalciuria.
- b) Hypervitaminosis D.
- c) Primary hyperparathyroidism.
- d) Secondary hyperparathyroidism.
- e) Tertiary hyperparathyroidism.

Answer: c

5 General Surgery and Obstetrics

A 35-year-old female presents to Casualty Department with acute abdomen. On examination she has BMI of 40, her pulse is 134 beats/minute and blood pressure of 97/70, and has markedly distended abdomen which also diffusely tender. Urgent blood tests result reveal: s-lipase = 2013, s-amylase = 1334, corrected s- calcium = 1.98mmol/l, white cell count of 21 and blood glucose of 26mmol/l. Background history reveals that she is has had amenorrhoea for eight months and denies ethanol intake. Which one of the following would be the most likely risk factor of the probable diagnosis which can explain both the clinical and biochemical findings?

- a) Diabetic ketoacidosis.
- b) Gall stones.
- c) Hypercalcaemia.
- d) Hyperlipidemia.
- e) Pregnancy.

Answer: b

6 Ophthalmology

A 23-year-old female is presents to Outpatients Department for unilateral painless swelling of the eye for four (4) months. Background history reveals that she has been relatively except for unexplained weight despite good appetite. On examination her heart rate is 110 beats per minute with normal temperature. Locally examination show proptotic right eye without erythema. The contralateral eye is normal. Which one of the following conditions would be the most plausible explanation of the above findings?

- a) Basedow-Graves.
- b) Torosa-Hunt syndrome.
- c) Pancoast tumour.
- d) Carvenous sinus thrombosis.
- e) Neuroblastoma.

Answer: a

7 Upper GIT bleeding

A 56-year-old patient who is back in a low dependency ward from the Intensive Care Unit where he/she was being treated for upper gastrointestinal bleeding from esophageal varices. On physical examination looks well and the only abnormal finding on abdominal examination is massive splenomegaly with no shifting dullness. The latest blood results reveal the following: INR of 1.1, Sodium of 136mmol/l, potassium of 3.4, albumin of 3.8, creatinine of 65micromoles/l, total bilirubin of 12micromoles/l. Serological test and ultrasound of the liver showed elevated specific IgG antibodies and peri-portal fibrosis, respectively. Which one of the following drugs would be the most appropriate to prescribe to him on discharge for long term treatment?

- a) Furosemide.
- b) Praziquantel.
- c) Propanolol.
- d) Spironolactone.
- e) Vitamin K.

Answer: c

8 Skin and soft tissue infection

A 16-year-old patient is admitted to a surgical ward for treatment of right leg soft tissue infection. On examination the patient is stable but has a heart rate of 104 and his temperature is 38.5 degree Celsius. Locally the leg is erythematous and tender. The patient denies any allergy. Which one of the following antibiotics would be the most appropriate to prescribe for this patient?

- a) Augmentin.
- b) Chloramphenicol.
- c) Erythromycin.
- d) Metronidazole.
- e) Rocephine.

Answer: a

9 Plastic Surgery

A 34-year-old male presents with a wound on his shin after motor vehicle accident. After repeated debridement the wound is clean but a significant defect is left and, his tibia and tendons exposed. Which one of the following is the most appropriate step to take to manage the wound?

- a) Hyperbaric oxygen therapy.
- b) Myocutaneous flap.
- c) Placement of biobrane.
- d) Split thickness skin graft.
- e) Z-plasty.

Answer: b

10 Vascular

A 45-year-old female presents to casualty with acutely painful lower limbs associated with paraplegia. On physical examination the following are found: Blood pressure of 245/167, acute abdomen, anuria and T10- paraplegia. There is no history of trauma and she has been well except for hypertension barely controllable with three drugs. Involvement of which one of the following branches of the aorta is the most plausible explanation of her acute paraplegic state?

- a) Anterior spinal artery.
- b) Artery of Adamkiewicz.
- c) Inferior phrenic artery.
- d) Posterior spinal artery.
- e) Supreme intercostals artery.

Answer: b

11 Cardiothoracic

A 17-year-old male patient presents to the Casualty Department with a left second intercostal space/ parasternal stab wound of the chest with the following clinical findings: restlessness, tachycardia, distended neck veins, muffled heart sounds, the trachea is central and has marked peripheral vasoconstriction. Which one of the following diagnoses is the most plausible underlying reason for the above clinical findings?

- a) Cardiac tamponade.
- b) Neurogenic shock.
- c) Open pneumothorax.
- d) Tension hydrothorax.
- e) Tension pneumothorax.

Answer: a

12 Trauma

The picture below is of a patient who was brought to your local Trauma Unit unstable after sustaining penetrating neck injuries.



The picture above is of a patient who was sustained gunshot wound to the neck. Which one of the following factors would be the most appropriate indication for emergency neck exploration?

- a) Expanding hematoma.
- b) Gunshot injury.
- c) Haemoglobin below 10g/dl.
- d) More than one entrance wound.
- e) Subcutaneous emphysema.

Answer: a

13 Vascular

The picture below is of a foot of a 62-year-old patient who presented to Surgical Outpatients Department complaining of non-healing sores. Background history reveals that he is hypertensive and has 37 pack year history of smoking but is not having diabetes mellitus. The ipsilateral pulses are absent from femoral down.



Which one of the following options would be the most appropriate to consider in the care of this patient?

- a) Charles procedure for secondary lymphoedema.
- b) Hyperbaric oxygen therapy.
- c) Incision biopsy from the ulcer edge.
- d) Trial of deep vein compression stockings.
- e) Work-up for arterial revascularization.

Answer: e

14 Upper GIT bleeding

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- a) Furosemide.
- b) Praziquantel.
- c) Propanolol.
- d) Spironolactone.
- e) Vitamin K.

Answer: c