



THE COLLEGES OF MEDICINE OF SOUTH AFRICA

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Examination for the Subspecialty Certificate in Gastroenterology of the
College of Surgeons of South Africa

22 July 2019



1 Paper Only

(3 hours)

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

- 1
- a) Define intestinal failure associated liver disease and discuss its prevention, diagnosis and management. (25)
 - b) Detail the risk factors for the development of refeeding syndrome and discuss its prevention and diagnosis. (25)
 - c) Describe your technique for successful placement of an endoscopic nasojejunal feeding tube. (25)
 - d) Discuss your approach to performing interventional endoscopic procedures on patients receiving anti-platelet or anticoagulant therapy. (25)
- [100]

Answer either Section A or Section B of Question 2

Section A (Question 2)

- 2
- a) In regard to cholecystectomy
 - i) Describe the blood supply of the biliary tree. (15)
 - ii) In a difficult laparoscopic cholecystectomy, discuss intra-operative measures to reduce the risk of an iatrogenic bile duct injury. (15)
 - iii) Discuss the advantages and disadvantages of three bile duct injury classification systems. (15)
 - b) A 27-year-old female underwent an elective laparoscopic cholecystectomy for previous acute cholecystitis 3 weeks prior to presenting to your rooms with obstructive jaundice.
 - i) Discuss in detail your approach to investigating and managing this patient. (40)
She is found to have a bile duct injury.
 - ii) Detail the factors that put her at risk of developing long term complications of her bile duct injury and how you minimise those risks. (15)
- [100]

Section B (Question 2)

- 2
- a) A 36-year-old female known with small bowel Crohn's disease is referred to you with features of partial intestinal obstruction, only tolerating a liquid diet. Medical therapy has failed to improve the patient's symptoms. She has a 5cm terminal ileal stricture and a 2cm mid jejunal stricture on MRE, both are thought to be fibrotic. Currently she has been on 40mg of prednisolone daily for 2 months having failed maintenance therapy of Infliximab and Azathioprine, which were last given 2 months before the consultation. She is hypertensive and smokes 30 cigarettes a day. On examination she has thenar and bi-temporal wasting and atrophic glossitis. Her serum sodium is 137mmol/l, potassium 3.2mmol/l, albumin 28g/dl and she has a normocytic normochromic picture on full blood count, with a Hb of 8.2g/dl
 - i) Detail how you would optimise her pre-operatively. (30)
 - ii) Describe your preferred surgical approach and discuss alternatives to your approach. (40)

- iii) Detail her optimal post-operative follow up and the modalities you would recommend to define disease activity. (30)
[100]

Answer either Section A or Section B of Question 3

Section A (Question 3)

- 3 a) A 38-year-old lady with a BMI of 40 is admitted to the emergency department with epigastric pain. She gives history of attending an end-of-year party arranged by the company she works for and consumed some alcohol. Serum amylase is 763U/L. Further blood results include white cell count $14.0/10^9/L$ urea 13.1mmol/L, creatinine 111 $\mu\text{mol/L}$, C-reactive protein 230mg/L. Her arterial blood gas on room air has a pH 7.29, PaO₂ 78mm Hg, base excess -6.4 and lactate 4.9mmol/L. Serum Triglycerides are 1000mg/dl, and the Liver Function Tests are total bilirubin 80 $\mu\text{mol/L}$, conjugated bilirubin 69 $\mu\text{mol/Lg/L}$, ALP 110U/L, GGT 94U/L, AST 156U/L and ALT 170U/L. Ultrasound of the abdomen shows multiple small stones in the gall bladder, the bile duct could not be properly visualised
- i) What are the possible causes of her acute pancreatitis and what is the proposed mechanism of the cause you consider the most likely. (15)
- ii) Grade the severity of her acute pancreatitis according to current guidelines and discuss prognostic factors and their role in this patient. (20)
- iii) Discuss the management of this patient in relation to
1. Indications and timing of an ERCP. (10)
 2. Nutritional support. (10)
 3. Management of hypertriglyceridaemia. (10)
- iv) Discuss the management of walled off necrosis. (10)
- v) Discuss the management options of a patient with confirmed pancreatic ascites. (25)
[100]

Section B (Question 3)

- 3 a) A 42-year-old healthy male patient presents with a rectal carcinoma tethered to the sphincter on PR examination. CT of the chest and abdomen show no distant metastasis and a colonoscopy is otherwise clear
- i) Discuss the indications and rationale behind the use of radiotherapy. (30)
- ii) Discuss areas of controversy in rectal surgery using the following headings. (40)
- Bowel preparation.
 - Anastomotic technique.
 - Mode of surgery ie open, laparoscopic, robotic,trans anal.
- iii) Describe your management of an anastomotic leak after TME using a flow diagram. (30)
[100]

Answer either Section A or Section B of Question 4

Section A (Question 4)

- 4 a) Discuss the diagnosis of hepatocellular carcinoma under the following headings
- i) Screening. (10)
 - ii) Imaging characteristics including the Liver Imaging Reporting and Data System LI-RADS. (10)
 - iii) Liver biopsy. (5)
- b) A 35-year-old male presents with vague right upper quadrant pain. Abdominal ultrasound showed a mass in the left lobe of the liver, and Triphasic abdominal CT scan demonstrated a 6cm hypervascular lesion with early washout. His AFP is 1245ng/mL
- i) Detail the Barcelona Liver Clinic Staging System of hepatocellular carcinoma and what further information is required to stage this patient. (25)
 - ii) Compare liver transplantation and liver resection for hepatocellular carcinoma (make specific reference to indications, contra-indications, outcomes, advantages and disadvantages of each) in general and then to this patient if his Child Pugh score is 7 and ECOG score is 1. (25)

- iii) Write short notes on
1. Intermediate stage HCC. (15)
 2. Li-Rad 4 liver lesions. (10)
- [100]

Section B (Question 4)

- 3 b) With respect to faecal incontinence in adults
- i) Discuss the evaluation of a patient with faecal incontinence. (20)
 - ii) Discuss the indications, expected outcomes and complications of the various surgical options. (20)
- b) Discuss the surgical options for the management of complex anal fistulas including the anticipated outcomes. (30)
- c) A 20-year-old gay man presents with a one-week history of mild constant anal discomfort. He has a frequent urge to defecate but passes only yellow slimy liquid. He doesn't feel ill and is afebrile. His abdominal, inguinal or penile examination was normal. A drop of pus was present at the anal opening. On digital examination his anal canal was unusually sensitive. On endoscopy examination a bead of pus was noted at the anorectal junction and the distal rectal mucosa had lost its vascular pattern
- i) What tests would you do? (10)
 - ii) What treatment would you arrange? (10)
 - iii) What advice would you give? (10)
- [100]