

The Hong Kong College of Anaesthesiologists
Final Fellowship Examinations
Paper I – Clinical Scenario (1 - 6) & SAQ (7 - 12)
4 September 2023 (Monday)
09:00 – 11:00 hours

Instructions:

- a. There are twelve pre-labelled answer books. Please make sure you answer the questions in the respective answer books.
- b. Write your candidate number on the cover of each answer book.
- c. Use ink or ball-point pen.
- d. There are 12 questions in this paper. Answer **ALL** questions. They are worth equal marks and you should spend approximately **ten minutes** for each question. For questions with multiple parts, allocation of marks is indicated in the brackets.
- e. Questions 1-3 are related to Scenario A, Questions 4-6 are related to Scenario B, Questions 7-12 are standalone short answer questions.

Scenario A

A 50-year-old woman is scheduled for gastric bypass surgery for morbid obesity. Her weight is 114kg and her height is 150cm with a BMI of 50.6kg/m². The patient has poorly controlled diabetes mellitus and hypertension.

She has been on a very low-calorie ketogenic diet (VLCKD) and has lost about 8kg over a two-month period.

- 1) Outline your preoperative concerns (75%). What are the side effects of a very low-calorie ketogenic diet (25%)?
- 2) How would you anaesthetize this patient for the surgery?
- 3) The patient developed acute kidney injury (AKI) after surgery. What are measures that can prevent and mitigate the risks associated with AKI in this patient?

**Go to page 2 for Scenario B
Questions 4-6**

Scenario B

A 2-year-old boy (16kg) with Down's Syndrome presents for elective circumcision after an episode of urinary tract infection and known vesicoureteric reflux.


- 4) Describe the features of Downs Syndrome important to planning this anaesthetic.

In your preoperative assessment, you notice a cardiac murmur.

- 5) Describe how would you assess the patient's cardiac condition.

The surgeon asks you to provide postoperative analgesia for this child.

- 6) Describe how you would perform a penile nerve block.



**Go to page 3 for
Questions 7-12**

Short Answer Questions

- 7) A 34-year-old female presents with severe headache and neck stiffness. She is drowsy but will open her eyes and verbally reports no other symptoms. On CT assessment she has Subarachnoid hemorrhage (SAH) and an Anterior Communicating Artery aneurysm suitable for endovascular coiling.
- (a) What are your major clinical concerns in the timing of the procedure (30%)?
(b) How would you manage rupture of the aneurysm during the procedure (70%)?
- 8) A pregnant woman at 36 weeks gestation presents in respiratory distress to the emergency department of your hospital. She has been unwell for the last 2 days and is febrile with temperature 39°C. Her blood pressure is 80/40 mmHg. The obstetrician asks you to review the patient as her condition is deteriorating and he wants to deliver the baby.
How will you manage this patient?
- 9) Outline the preoperative checklist for tracheostomized patients presenting for general surgery (40%). Outline your management of accidental tracheostomy decannulation during general anaesthesia with muscle relaxant for laparotomy (60%).
- 10) A 68-year-old male patient requires a right exploratory thoracotomy for decortication and drainage. He had community acquired pneumonia of right lung with persistent empyema for 8 weeks despite chest tube drainage and antibiotics treatment.
List the general options of lung isolation. Discuss the pros and cons of these options in this patient.
- 11) A 70-year-old patient with type 2 diabetes mellitus requires urgent lower limb arterial bypass surgery for critical limb ischemia. She is on dapagliflozin (a sodium-glucose cotransporter 2 inhibitor).
Outline your perioperative concerns for this patient (50%) and discuss the perioperative management specifically for the diabetes mellitus (50%).
- 12) (a) Discuss the pathophysiological consequences of prolonged arterial tourniquets used in orthopedic procedures (70%).
(b) What are the precautions for safe use of arterial tourniquet (30%)?

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