



The Hong Kong College of Anaesthesiologists
Final Fellowship Examination
Paper I – Clinical Scenario (1 - 6) & SAQ (7 - 12)
10 September 2018 (Monday)
09:00 – 11:00 hours

Instructions:

- a. There are four 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

You have been asked to provide anaesthetic care to the first robotic-assisted laparoscopic radical prostatectomy at your tertiary referral hospital.

1. What are your considerations in anaesthetic preparation and management for this case?

The patient weights 98 kg, with a height of 170 cm. He has hypertension and is a heavy smoker (20 pack-years).

2. Outline the physiological response to the establishment of pneumoperitoneum (50%) and subsequent steep Trendelenberg positioning (50%).

You observe a steady increase in his end-tidal carbon dioxide tension, from 5.0 to 9.0 kPa, during the first hour of anaesthesia with an associated increase in heart rate to 110 bpm.

3. Describe your assessment (50%) and management (50%).

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

Scenario B

A 60-year-old man presents with haemoptysis. He is a chronic smoker with known emphysema. Chest X-ray shows a mass lesion in the right lower lobe and he is scheduled for flexible bronchoscopy and endobronchial tumour biopsy, under monitored anaesthesia care in the endoscopy suite of your hospital.

4. Describe your pre-operative assessment (50%). What are the factors that increase risk of perioperative respiratory complications in this case (50%)?
5. How would you conduct monitored anaesthesia care for this patient (50%)? What preoperative and intraoperative measures would you take to prevent hypoxia during the procedure (50%)?
6. Towards the end of the procedure, the systolic blood pressure drops from 140 mmHg to 80 mmHg systolic, and oxygen saturation drops from 95% to 88%. Describe your subsequent management.



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

Short Answer Questions

7. Discuss the pros and cons of different monitoring technique(s)/device(s) to detect cerebral ischaemia during carotid endarterectomy.

8. What are the risk factors for perioperative laryngospasm in a 5-year-old boy having adenotonsillectomy (50%)? Describe your initial management to treat laryngospasm after tracheal extubation (50%).

9. A 64-year-old female is scheduled to have L3-5 posterior lumbar decompression. She has a past medical history of hypertension. What cardiovascular and respiratory changes may occur when an anaesthetised patient is turned to prone position (25%) and what are the potential sources of injury in the prone position (25%)? Describe how you would anaesthetise this patient (50%).

10. A 77-year-old man is scheduled to have right video-assisted thoracoscopic pleurodesis for a large pleural effusion due to mesothelioma.
Describe the respiratory changes occur during one lung anaesthesia (25%) and how can oxygenation be maintained/improved during one lung ventilation (25%)?
Following induction of anaesthesia and tracheal intubation with a double lumen tube, describe your preferred anaesthetic technique (25%) and management of anaesthetic emergence and recovery at the end of procedure? (25%).

11. A 55-year-old man underwent a right sided open thoracotomy for lung cancer. Six months following surgery, he still complains of pain over the wound. Define chronic postsurgical pain (30%). Outline the interventions that may be useful in reducing the transition of acute to chronic postsurgical pain (70%).

12. A healthy 32-year-old man, weights 70 kg, had an uneventful endoscopic transsphenoidal hypophysectomy. After admission to the high dependency unit, you noted that the urine output was 260 ml, 420 ml and 380 ml for first three consecutive hours. Discuss the differential diagnosis (40%) and the subsequent management of the patient (60%).

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