



The Hong Kong College of Anaesthesiologists

Final Fellowship Examination

Paper I

18th August 2017 (Friday)

09:00 – 10:30 hours

Instructions:

- There are three pre-labelled answer books. Please make sure you answer the respective questions in the appropriate answer book.
 - Write your examination number on the cover of each answer book. **ALL** answers by using ink or ball-point pen.
 - Answer **ALL** questions (nine questions). They are worth equal marks and you should spend approximately ten minutes on each question.
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Scenario A

A 58-year-old woman is in the neurocritical care unit 24 hours after complaining of severe headache. She has a past history of tobacco use and hypertension. She is alert, mildly confused, and there is no focal neurological deficit. CT scan shows diffuse, thin subarachnoid haemorrhage (< 1 mm) with no blood clot. She is booked for microscopic clipping of a giant (2.5 cm) middle cerebral artery aneurysm within the next 6 hours.

- Outline the important aspects of your preoperative assessment and preparation of this patient.
- During the procedure, the surgeon plans to place a temporary clip. Describe the intraoperative goals and methods you will use to minimise postoperative neurological deficit in this patient.
- What are the principles of management of this patient in the first 24 hours postoperatively?

Scenario B

You are called to the Accident and Emergency Department to assess a 30 year old male driver who was involved in a car collision. He appears to be confused and smells strongly of alcohol. He is unable to move his legs. A cervical spine X-Ray shows C5/6 subluxation. Heart rate is 50 /min, Blood pressure 90/50 mmHg, Haemoglobin oxygen saturation (SaO₂) is 95% on room air, Glasgow coma scale (GCS) score is 14/15.

- Describe your initial assessment.
- Outline your management of his traumatic spine injury prior to surgery for cervical spine stabilization and fixation.
- During examination the patient suddenly vomits and you notice desaturation down to 90%. You suspect pulmonary aspiration and decide that the patient needs to be intubated and ventilated to protect his airway. Describe how you would manage this situation.

Scenario C

A 32-year old woman at 34 weeks of pregnancy returned to Hong Kong from Mexico, a week ago and is now presented with abdominal pain and vaginal bleeding. On examination she is found to have fever, body rash and conjunctivitis. Zika virus infection is suspected.

7. What are the anaesthetic implications of perinatal Zika virus infection?

8. Proximal muscle weakness is found during physical examination. Other physical findings and investigation results include body weight 76 kg, height 1.56 m, hemoglobin oxygen saturation (SpO₂) of 95% on 60% oxygen mask, blood pressure (BP) 100 / 60 mmHg, heart rate (HR) 98 /min. haemoglobin concentration (Hb) 9.7 g/dL, platelet count, $82 \times 10^9/L$. Emergency caesarean section is planned for placental abruption. What are the concerns (30%)? Discuss your plan of anaesthetic management (70%)?

9. After delivery of the fetus, BP suddenly drops to 65/27 mmHg, HR 140/min, SpO₂ 92%. What are the most likely differential diagnosis (30%)? Discuss your plan of management (70%).

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