HONG KONG COLLEGE OF
ANAESTHESIOLOGISTS

DIPLOMA OF FELLOWSHIP

FINAL FELLOWSHIP (INTENSIVE CARE)
SHORT ANSWER PAPER

15 Questions

MONDAY, 16th AUGUST 2010

9.00 am - 11:30 am

NOTICE

(A) Write your answers in the books provided.

(B) Start **each answer** on a **new page** and **indicate the question number**. It is not necessary to rewrite the question in your answer book.

(C) You should answer each question in **ten minutes** or less.

(D) The questions are worth equal marks.

(E) Record your number on the cover of each book and hand in all books.

ANSWER THE FOLLOWING

1. Describe what happens to citrate when used as anticoagulant during continuous renal replacement therapy. What are the advantages and disadvantages associated with the use of citrate?

2. A patient with a known Grade 4 larynx requires intubation for respiratory failure. Describe your approach to the airway management of this patient.

3. Compare and contrast the following drugs for use as sedation in the Intensive Care Unit (ICU):
   a. Midazolam
   b. Propofol
   c. Dexmedetomidine

4. What is ICU acquired weakness? List the risk factors for this condition. Briefly describe the prevention and treatment strategies.

5. A 35 year-old patient was admitted to hospital with perforation of small bowel due to small bowel ulcer. He underwent small bowel resection with end-to-end anastomosis. Post-operatively, he developed an enterocutaneous fistula. The daily output from the fistula was about 2L. Briefly describe your management of this patient.

6. Methicillin resistant Staphylococcus aureus (MRSA) is endemic in your ICU, which is a 20 bed mixed medical surgical ICU. The importation rate is 6.2 episodes per 1000 pt days and the acquisition rate is 5.9 episodes per 1000 patient days. Briefly explain/interpret the data and describe the strategies you would employ to control or prevent the spread of MRSA in your ICU.

7. It is the impression of the infection control team that the ventilator associated pneumonia rate of your ICU is high. Outline a quality improvement plan to improve the ventilator associated pneumonia rate in your unit.

8. Briefly describe the use of severity scores to assess quality in the ICU.

9. Write short notes on increased blood lactate in ICU patients.

10. A 29 year old man presents to the emergency department with increasing shortness of breath and fever for two to three weeks. The chest radiograph shows a large mediastinal tumour. List your main concerns and outline your management of this patient.

11. Describe the clinical limitations of pulse oximetry.

12. What is meant by the term "fluid responsiveness" in the ICU? How would it be assessed in your unit?

13. What are the indications, contra indications and complications of the use of the intra-aortic balloon pump? Draw a diagram of the arterial waveform that would result from its correct use as measured by the intra arterial catheter at the radial artery; include in your answer any relevant labels and/or explanation.

14. Outline the problems associated with massive transfusion, including prevention and/or treatment strategies.

15. Describe the role of cardioversion in the ICU.

End