



The Hong Kong College of Anaesthesiologists

Intermediate Fellowship Examination

Written Paper in Pharmacology

Friday, 17 July 2009, 14:00 - 16:00 h

Answer **ALL** questions

1. Ketamine is used frequently in remote locations with limited resources. Outline the advantages and disadvantages of ketamine for induction and maintenance of anaesthesia in this setting.
2. An 80 year old presents for laparotomy. Outline the clinically significant aspects of remifentanyl pharmacology when used as part of a balanced anaesthetic technique in combination with isoflurane in this situation.
3. Outline the pharmacology of synthetic oxytocin (Syntocinon).
4. Classify the agents used for the treatment of epilepsy according to their mechanisms of action. What are the possible drug interactions that one might encounter during anaesthesia of a patient receiving antiepileptic agents?
5. A new antiemetic was reported to prevent vomiting after surgery with a “number needed-to-treat (NNT)” of 2. What does the number mean? Outline the situations where NNT is not useful in describing the efficacy of a treatment.
6. Outline the pharmacokinetic differences between pregnant and non-pregnant women. (In your answer, **do not** discuss placental drug transfer).
7. Outline the problems of nitrous oxide in contemporary anaesthesia.
8. Describe the potential effects of inadvertent intravenous injection of 20 mls of 0.25% bupivacaine. Why might lignocaine be considered a safer agent than bupivacaine?
9. Outline the mechanisms, clinical features and treatment of paracetamol poisoning.
10. Describe the pharmacology and uses of protamine.
11. Compare and contrast the pharmacology of atropine and scopolamine.
12. Describe the potential hazards of prolonged assisted lung ventilation with 100% oxygen in the intensive care unit.

***** END OF PAPER *****