



The Hong Kong College of Anaesthesiologists

Intermediate Fellowship Examination

Written Paper in Pharmacology

Friday, 20 February 2009, 14:00 - 16:00 h

Answer **ALL** questions

1. Compare and contrast the effects of propofol and sevoflurane on the central nervous system. (Do not discuss effects on respiratory and cardiovascular centers)
2. Outline the respiratory effects of morphine. Outline the factors that may increase the risk of respiratory depression in the postoperative period in patients receiving intravenous morphine.
3. Describe the clinical features and treatment of organophosphate poisoning.
4. Describe the factors that influence the hypnotic effects of an intravenous bolus dose of propofol.
5. A non-depolarising muscle relaxant was infused during a laparotomy to maintain relaxation. Neostigmine in conjunction with atropine was administered to reverse the effects of the neuromuscular block. Outline the factors that may affect the time to adequate reversal.
6. Outline the pharmacology of dexamethasone with reference to its use as an antiemetic.
7. Define variance, covariance and correlation coefficient (mathematical formulae not required). What are the relationships between the three terms? Explain which is the better measure of association between variables?
8. What processes are involved in the biotransformation of drugs? Describe the factors that may affect the activity of these processes.
9. Outline the factors that may increase the duration of action for local anaesthetic agents.
10. Classify antibiotics according to their mechanism of action, illustrate your answers with examples.
11. Compare and contrast the pharmacology of parecoxib and ketorolac.
12. Briefly describe agents that may be used to enhance clotting after major intraoperative bleeding. What are the potential side effects?

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