



The Hong Kong College of Anaesthesiologists
Intermediate Fellowship Examination
Written Paper in Pharmacology

Friday, 13 February 2015, 14:00 - 16:00

The questions carry equal marks. Answer **ALL** questions. For questions with multiple parts, allocation of marks is indicated in the brackets.

1. Write brief notes on the current theories as to how anaesthetic agents exert their pharmacological effects.
2. What general processes are involved in the hepatic metabolism of drugs (20%)? Outline the metabolism of morphine and pethidine (80%).
3. Describe how a peripheral nerve stimulator can be used to assess neuromuscular blockade.
4. List the clinical indications for beta adrenergic blocking drugs (30%). What are the adverse effects that can be related to their use (70%)?
5. What are the advantages and disadvantages of using nitrous oxide as part of an anaesthetic technique?
6. Classify isomers (40%). Give examples of the importance of isomers in anaesthetic practice (60%).
7. Compare the pharmacology of ranitidine and sodium citrate used in patients at risk of acid aspiration.
8. What are the potential adverse effects of amiodarone for the treatment of arrhythmias in patient presenting for anesthesia?
9. How does the pharmacokinetics of intrathecal morphine influence its analgesic activity (30%)? Write short notes on the risks of such regimen as post-operative pain relief (70%)?
10. Describe the pharmacology of dabigatran (50%). In patients having surgery, describe methods to reverse the pharmacological effects of dabigatran (50%).
11. Outline the pharmacology of oxytocin on uterus.
12. Compare and contrast the pharmacokinetic properties of midazolam and propofol.

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