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

Friday, 6 September 2013, 14:00 - 16:00

The questions carry equal marks. Answer ALL questions.

1. Compare and contrast the effects of desflurane and propofol on the central nervous system. (Do not discuss effects on the respiratory and cardiovascular centres)

2. Write short notes on the adverse effects resulting from potential toxic products which may arise during the administration of inhalational anaesthetics.

3. Describe the potential toxic effects associated with the use of local anaesthetics.

4. Classify receptors and briefly describe each of the classes that you have mentioned. Give an account of the actions of morphine on its receptor.

5. Compare and contrast the nature of ion channels acted on by local anaesthetics and non-depolarising muscle relaxants. Describe the action(s) of Local anaesthetics and non-depolarising muscle relaxants on their respective ion channel(s).

6. A non-depolarising muscle relaxant was infused at a constant rate during a laparotomy to maintain surgical relaxation. Outline the factors that may affect the time to adequate spontaneous recovery of neuromuscular function.

7. Classify anti-emetic drugs. Describe, with example, the mechanism of action for each class.

8. Compare and contrast the mechanism(s) of action, pharmacological actions and adverse effects of angiotensin converting enzyme inhibitor (ACEI) with angiotensin II receptor blockers (ARB).

9. Outline the pharmacokinetics and pharmacological actions of dexmedetomidine.

10. Describe the statistical tests that could be used to establish an association or relationship between 2 independent variables. What are the pros and cons of the tests that you have named?

11. Write short notes on the pharmacology of unfractionated heparin. List, with justifications, clinical situation(s) that you may choose unfractionated heparin over low molecular heparin.

12. What are the adverse effects of acute digoxin overdose? Outline the principles of management of digoxin overdose.

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