Summer Examinations 2015

ANW303815N

Module Title: Veterinary Pharmacology & Complementary Therapies
Level: Six
Time Allowed: Two hours

Instructions to students:

- Enter your student number not your name on all answer books.
- Read the questions carefully and answer all questions.
- Question 1 carries 25 marks, Question 2 carries 40 marks and Question 3 carries 35 marks.
- Begin each question in a separate answer book; label each answer book clearly with the number of the question you are answering.
- Neither books nor notes may be taken into the examination.
- The use of a non-programmable calculator is permitted.

No. of Pages: 3
No. of Questions: 3
Question 1

Mr Smith phones up his veterinary practice, requesting a repeat prescription of Septrin (an oral sulfamethoxazole and trimethoprim antibiotic suspension, licensed for treating humans) for his rabbit Arthur. Arthur was last seen over 12 months ago, and has chronic snuffles which have failed to resolve following an extensive clinical work up. When asked to present Arthur for a repeat consultation, Mr Smith refuses, and states his intention to seek alternative treatment via complementary therapies such as homeopathy or acupuncture.

What is your response? Topics you must cover include: the cascade system, considerations under the Animal Welfare Act (2006) regarding Duty of Care, prescription guidelines for veterinary surgeons, legal and ethical issues surrounding the use of medications and complementary therapies. Ensure you consider a variety of points of view, and critically analyse any legislation applicable to this scenario.

(25 marks)

Question 2

Henry is a 1 year old recently castrated cross breed horse, his field companion Fizzle the Shetland pony was castrated at the same time. They have both been given the NSAID phenylbutazone perioperatively by injection, and prescribed phenylbutazone post operatively by mouth.

Each Equipazalone oral powder sachet (containing 1gram of the active substance, phenylbutazone), should be administered as a whole sachet and not split, it has the following dosing instructions in the data sheet:
- From day 2, horses (450kg body weight) should be given 2.2mg/kg, twice daily, by mouth for four days.
- From day 2, ponies (225kg body weight) should be given 4.4mg/kg on alternate days, by mouth for four days.

a. What dose, and therefore how many sachets, should be given to Henry, who weighs 450kg, and what dose should be given to Fizzle, who weighs 230kg? Remember to state how frequently these doses should be administered, and include both the calculated dosage, and the actual quantity of product to be administered.

(10 marks)

b. On day 3, the castration wounds are looking red and sore; the horses seem to be in pain. Their owner has some Metacam for horses (containing Meloxicam, an NSAID) in a cupboard left over from a previous injury. How should the prescribing vet explain the potential consequences of administering the Metacam alongside the Equipazalone, and what alternative analgesic options are available? In your answer you must consider the mechanisms of action and the side effects of the drugs. You could also consider multi-modal pain management, and complementary treatment options.

(30 marks)

Total: 40 marks
Question 3

Cephalosporin’s are a commonly used class of antibiotic.

For cats, there are 2 popular licenced forms of cephalosporin:

- Ceporex 50mg tablets (containing Cefalexin, a 1st generation cephalosporin) should be administered every 12 hours orally, one tablet should be given twice daily to cats up to 4kg, the duration of treatment should be determined by the veterinary surgeon prescribing the course.
- Convenia 80mg/ml solution for injection (containing Cefovecin, a 3rd generation cephalosporin) should be administered sub-cutaneously by injection, achieving approximately 14 days of treatment.

Critically evaluate the route of administration of each drug in a cat suffering with a cat bite abscess on the hind leg. Ensure you consider the pharmacokinetics, the route of administration, operator safety, the risk of developing resistant infections and the ethical considerations of using antibiotics in this case.

(35 marks)