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In regards to veterinary prescriptions:

Veterinary prescriptions that are filled by pharmacists should not be altered and substitutions should not be made, without consultation or consent by the prescribing veterinarian. The following are explanations and reasons as to why this is such an important concern to veterinarians.

1. Human dosages can not be extrapolated to veterinary dosages. For example, a recommended human dosage of insulin for Humulin is 0.3-0.7 U/kg/day, as compared to a starting dosage of 0.25-0.5 U/kg twice a day for canines.

2. Dosages for one species (e.g. - canines) can not be extrapolated to another species (e.g. – felines). For example, fluoroquinolone antibiotics in canines have a wider dosage range than in felines. If a feline were to receive such a high dosage of a fluoroquinolone, blindness could result.

3. Published dosages for veterinary patients are not specific for age, and potential side effects of commonly used medications could be detrimental if given at an inappropriate age. For example, a published dosage of a fluoroquinolone antibiotic can be safely used in an adult canine, but the same published dosage given to a puppy may cause severe cartilage defects resulting in abnormal joint development and growth.

4. Dosages for one breed cannot be extrapolated to another breed. For example, some Collie dogs are genetically unable to tolerate ivermectin. A German Shepherd of the same weight as a Collie may be prescribed a dose of ivermectin to treat a parasitic condition, yet the same dose of ivermectin given to a Collie could be considered toxic and could even be fatal.

5. Many human medications can not be used in veterinary patients. For example, humans and canines both use a type of medication called NSAIDs (non-steroidal-anti-inflammatories) to control pain and inflammation. However there is a difference between human NSAIDs and canine NSAIDs. The human NSAID called Ibuprofen can not be used safely in canines, because it may cause severe gastric ulceration

or liver failure. Additionally, both human and canine NSAIDs are toxic to felines. Another example is human insulin. Some canines and felines use human insulin to control diabetes mellitus. However, the type of human insulin used will have different and potentially detrimental effects on each species.

6. Veterinary formulary and/or veterinary drug handbook dosages are meant to be used in conjunction with the patient's history, knowledge of current medication, and physical examination/diagnostic test findings. For example, Trilostane is a medication used to treat a condition called hyperadrenocorticism in canines. With a published dosage range of 2-10 mg/kg, each individual canine's dosage is determined based upon bloodwork test results and clinical response. Some canines receive 2 mg/kg once a day, some receive 2 mg/kg twice a day, while others receive 10 mg/kg once a day -- all treating the same condition. If the pet receiving 2mg/kg once a day was suddenly changed to a published dosage of 10 mg/kg, the results for this particular medication and condition could be fatal.

7. Published veterinary dosages or veterinary drug handbooks can change or become outdated. Veterinarians rely on continuing education and professional meetings or discussions with colleagues to keep our patients' health and safety a priority in an ever-changing environment of pharmaceuticals.

8. Some commonly used or household human medications are extremely toxic to veterinary patients. For example, felines are unable to metabolize Tylenol (acetaminophen) properly, and the consequences could be liver failure and death.

9. Alterations/changes or substitutions in regards to the physical form of the medication may have a significant effect on the veterinary patient. For example, improper administration of a capsule/tablet of doxycycline (rather than a liquid formulation) to a feline may cause esophageal ulcers, erosions and strictures.

10. Off-label use of medications is commonly used to treat various conditions in veterinary patients. For example, Metacam (meloxicam) is an NSAID that is labeled for canines for pain and inflammation. This medication is used off-label in rabbits to treat pain and inflammation, at a much higher dosage than canines. Questions regarding off-label usage of medications should be directed to the prescribing veterinarian, not to the owner of the patient.

11. A veterinary drug handbook (e.g. - Plumb's Veterinary Drug Handbook) should be available if veterinary prescriptions are being dispensed by a pharmacy. The information in the handbook may be given to the veterinary patient owner to detail potential side effects or adverse effects of the medication, just as what is done with human prescriptions. As mentioned above, however, the dosages in the drug handbook should not be used to prescribe medication.

12. Some veterinary products are not compatible in the same patient. For example, a canine receiving Ivermectin for external parasite treatment, can not be prescribed Spinosad (a commonly used flea preventative). Without knowing prior medical history, this pet may be mistakenly prescribed Spinosad and will suffer a toxic reaction.

13. Dosages of veterinary medications are sensitive to and dependent on regular rechecks of bloodwork, physical examinations and client communication. For example, canines receiving the anticonvulsant medication Phenobarbital should have regular bloodwork done to monitor the therapeutic levels to ensure that the current dosage is neither toxic nor non-therapeutic. Another example is that heartworm preventatives should not be prescribed or dispensed to patients who may have existing heartworm disease. A blood test to confirm that the pet does not have heartworm disease is needed to ensure that the preventative will not cause a fatal reaction when given.

14. Prescriptions for veterinary patients may come from more than one veterinarian (for example, veterinarians at two different clinics may be seeing the same patient for two different conditions). Without prior knowledge of the patient's history and current medications, some prescribed medications may prove detrimental to their health. A prescription should be not be dispensed to a patient without prior medical history or knowledge of current medications.

15. Physical application of veterinary products/medications to the patient can have significant consequences. For example, topical heartworm and flea preventatives must be applied to the skin (not to the fur) of a canine or feline to be effective and prevent disease. Proper client education and communication is also needed to ensure that these topical medications do not pose a safety threat to young children or the pet itself if accidentally ingested/placed in the eye.

16. Many OTC formulations of commonly used medications/supplements exist for both veterinary patients and humans. The side effects or efficacy of these medications are largely unknown and untested in veterinary patients. For example, there are many joint supplements available for both canine and human use. Some are veterinary-approved and only sold at veterinary clinics, while others are available at pet stores or online. Efficacy and safety of non-veterinary approved or human joint supplements in canines is unknown.