ISSUES & ANSWERS

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PART 1 of a 2-PART SERIES

Compounding for the Small Animal Practitioner

Compounding is the tailoring of an existing drug to fit the specific needs of an individual patient.

AMDUCA = Animal Medical Drug Use Clarification Act,
AVMA = American Veterinary Medical Association,
FDA = Food and Drug Administration,
USP = US Pharmacopeial

ISSUE

"HOW DO I ADAPT THE VAST ARRAY OF HUMAN AND VETERINARY MEDICATIONS TO FIT MY PATIENTS' NEEDS?"

This is a common question that plagues most, if not all, small animal practitioners during the course of their careers. There likely will always be problems with finding the right drug formulation at, for example, the appropriate strength or one the patient will not refuse.

ANSWER

COMPOUNDING DEFINED

Each patient is unique, and in many cases, the available commercially prepared medications may not fit all patient needs. **Compounding** is the tailoring of an existing drug to fit the specific needs of an individual patient. In veterinary medicine, this could involve the creation of noncommercially available formulations such as

- Capsules or tablets, compounded to patient-specific strengths, sizes, and/or combinations
- Oral liquids (eg, suspensions, solutions)
- Medicated treats, which improve palatability and acceptance
- Transdermal gels (eg, methimazole), which help avoid oral and GI involvement[1]

Not every drug can be safely or effectively compounded. For those that can, properties, including pharmacokinetics and pharmacodynamics, can be altered.[1] In some instances (eg, when using transdermal methimazole), efficacy can be evaluated with clinical monitoring (in this case, a thyroid panel). It is important to evaluate each drug and discuss the options with a compounder before choosing a compounded product.

A big misconception about compounding is that it is synonymous with use of a generic drug.

A generic drug, like its brand name counterpart, is a manufactured drug. Manufactured drugs are made on a large-scale, regulated by the FDA, and intended to be distributed to many patients. Compounding, however, is done on a much smaller scale, is not directly regulated by the FDA, and is intended for individual patients. For example, tramadol 50-mg tablets are commercially available from many manufacturers, either as the brand name or as the generic tramadol HCl identified by a National Drug Code. However, the tablet strength is too high for many smaller patients, so a tramadol 10-mg/mL suspension offers a safer option. The suspension formulation, however, is not available from a large-scale manufacturer and therefore would have to be formulated by a compounding pharmacy and customized on an individual patient basis.

Compounding Guidelines

- Only compound if there is no human- or veterinary-labeled drug available in an appropriate formulation.
- All compounding must be done by a licensed pharmacist or veterinarian.
- All compounds must be for individual patients within a valid veterinarian–client–patient relationship.*
- Follow all relevant state and federal laws.
- All dispensed medications must be adequately labeled.

*Some states allow "For Office Use" compounds. See individual state regulations for further details.

REGULATION

With so many options and the lack of FDA regulation, many practitioners are hesitant to turn to compounding, questioning the consistency and quality of compounded products.

LOOK FOR PART 2 IN A FUTURE ISSUE

The Do's & Don'ts of Compounding will include helpful questions to ask when considering compounding.

Compounding should not be looked on as a flawless science, but the prescriber and compounder can work together to deliver quality therapy. It is crucial to abide by the Animal Medical Drug Use Clarification Act (AMDUCA) and all appropriate FDA compliance guidelines regarding veterinary compounding. In addition, the US Pharmacopeial (USP) Convention standardizes the ingredients, techniques, and evaluation of compounding practices.[2] The USP guidelines provide the foundation for consistency and good compounding practices. Most state boards of pharmacy, as well as the AVMA, recognize the USP guidelines as enforceable procedures for compounding.[3]

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