



Siete Leguas Equine Veterinary Services
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Cold Spring, MN 56320

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Winter Edition 2012

A Note From Nicole...

Here's hoping that everyone found enough hay for the winter! I know hay prices have climbed this fall, and we are very fortunate to have had such a successful tack sale for the rescue (MHARF) so that purchasing hay for the horses doesn't hurt quite so much! I've heard nice small squares going for as much as \$6-7 per bale... I have become involved with the Minnesota Unwanted Horse Coalition, and we are working on a few projects, including a possible "hay bank" for people who find themselves in desperate situations. We will also continue to be involved with The Gelding Project, which assists horse owners in getting their studs castrated for a discounted price or free, following the attendance of some approved educational courses. One more project we are looking into is a Euthanasia Clinic, which other states have successfully held. Deciding this was just too depressing a prospect, we will be looking into other ways to assist people who have older or debilitated horses that really should be euthanized, but cannot afford it.

By the time you read this I will have attended the 2012 American Association of Equine Practitioners Convention in Anaheim, CA. It is always nice to connect with other horse vets! I'm sure I will have learned lots of new information to share with you!

I also plan on starting school again in January... I have applied to the University of Florida to study for a Graduate Certificate in Veterinary Forensics. The program was started with help from the veterinarian who was responsible for the forensic work that helped convict Michael Vick in his dog fighting charges. I am very excited to add another dimension to my veterinary skills, and continue to work for the welfare of animals. This is an online program, so don't worry, I'm not moving to Florida (too hot there anyway)!

Hope you all have a wonderful holiday season, and I look forward to seeing everyone in the spring.

Inside this issue:

Letter from Nicole/ MN Hooved Animal Rescue	1
Compounding drugs	2
Heated Barns and Horses/ Winter Care Reminders	3
Open House News/ Silver's Equestrian Out-fitters coupon	4



Holiday Hours

We will be closed Christmas day and New Years day.

If there is any emergency, we ask that you please call our after hour emergency line at 320-274-2223

MN Hooved Animal Rescue
Tack Sale



A big thank you to everyone who stopped by the tack sale. It was a great success this year with raising about \$10,000!

If anyone is interested in fostering a horse, please contact us here at Siete Leguas and we can forward you onto Drew at the rescue.

Compounding Drugs

“What horse owners need to know about compounded pharmaceuticals”

Overview

A drug is broadly classified by the U.S. Food and Drug Administration as any substance, food, or nonfood intended for diagnosis, cure, mitigation, or prevention of disease in humans or other animals; any substance intended to affect body structure or function; or any substance administered by injection.¹ Effectively, this definition implies that any substance used to “treat” an animal can be considered a drug.² There are two main types of pharmaceutical drugs: those manufactured by pharmaceutical companies and are FDA approved; and those that are “compounded” by either a licensed veterinarian or pharmacist. Compounding is commonly defined as “the art and science of mixing ingredients, which may be active, inactive, or both, to create a specific dosage form to meet a specific patient’s needs.”^{2,3} In other words, compounding is manipulating one drug to make a different dose for a specific patient. This can include mixing two drugs together, crushing tablets to make a suspension to administer orally, or adding flavoring to a commercially available drug.⁴

In equine medicine, compounding can be considered if a horse needs to be treated with a drug, but there is no FDA-approved formulation licensed for horses. In this case, a veterinarian can write a prescription and have a compounding pharmacy alter an FDA-approved formulation of the same drug licensed for humans to create the desired dose, form (liquid, paste, etc.), and even flavor the product (e.g., apple, cherry) to ease administration. Unfortunately, certain pharmacies have recognized that the FDA is unable to “police” veterinary compounding, and some pharmacies are selling compounded products in bulk over the Internet (for example) that duplicate FDA-approved drugs. This is neither permitted by the FDA nor safe for the horse being treated with the illegally compounded medication. In this fact sheet, reasons for compounding drugs and various factors to consider that ensure the safety, efficacy, and legitimacy of your compounded drug are described.

The Value of Compounded Drugs

It takes approximately 10 years and costs an estimated \$40 million to develop a new animal drug.² In veterinary medicine, pharmaceutical products are needed to treat hundreds of conditions in dozens of species, yet FDA-approved products in the required doses (strengths) and formulations (oral, injectable) do not currently exist for many of these species or diseases.² This is where compounding is extremely valuable, necessary almost, for veterinarians. Compounding allows veterinarians to treat patients that would otherwise suffer or die as a result of their disease because no FDA-approved drug was available.

Rules of Engagement

Strict guidelines surround the use of compounded drugs. For horse owners and equine veterinarians, the key points are highlighted here:

1. A compounded drug can only be prescribed if a valid veterinary/client/patient relationship exists;
2. A drug may not be compounded if an FDA-approved commercially available animal or human drug already exists that, when used in its available dosage form and concentration, will effectively treat the patient;
3. The compounded product must be made from an FDA-approved commercially available animal or human drug, not from bulk sources; and
4. The compounding must be performed by either a licensed veterinarian or pharmacist.^{2,3}

It is therefore illegal to compound a product if there is already an FDA-approved form of the drug except to make a different dose (strength). In this case, the FDA-approved drug must be used to make the compounded product. It is also illegal to compound a drug to charge less than the cost of the FDA-approved version of the drug.^{2,3} Based on these rules, there are many drugs that are legally allowed to be compounded for use in horses. On the other hand, there are a number of drugs that are currently compounded but are, based on the FDA’s regulations, illegitimate. These include Regu-Mate (altrenogest, which is used to suppress estrus in mares), GastroGard and UlcerGard (for equine gastric ulcers), the nonsteroidal anti-inflammatory drugs flunixin and phenylbutazone (both brand name and generic products), Adequan (an injectable product for degenerative joint disease), Protazil and Marquis for treating equine protozoal myeloencephalitis (EPM), and Ventipulmin (clenbuterol) for the management of airway disease such as chronic obstructive pulmonary disease (COPD, heaves).⁶

Concerns Regarding Compounding

FDA-approved drugs are tested for efficacy, quality, purity, strength, bioavailability, and stability, whereas most compounded drugs are simply presumed to be safe and effective.² In many cases, when the horse could suffer or die unless they are prescribed the compounded drug, then compounded drugs, despite their possible inadequacies, are better than not treating the horse.³

Owners do need to be aware, however, of the risks associated with compounding. For example, mathematical errors can occur, resulting in a compounded drug that contains too little active ingredient (and is therefore ineffective) or too much active ingredient, which can be fatal.⁷ Mathematical errors caused the death of 21 polo ponies in 2009 as well as several Thoroughbreds administered illegally compounded forms of clenbuterol. In addition, chemical reactions can occur between the bulk chemical and other components in the compounded product, in addition to light, temperature, and humidity all of which impact the stability of the product. Labeling errors (either accidental or intended) occur in which the amount of the drug in the compounded product does not match the labeled dose. For example, one research group found that the percent of legally compounded amikacin products ranged from 59–140% of the labeled content, and not one product was within 10% of the labeled amikacin content.⁵ Together, these factors can decrease the efficacy of the compounded product, resulting in therapeutic failure or death.⁵

Identify and Avoid Illegitimate Compounded Drugs

All horse owners and caretakers should be committed to providing high quality medical care to their horses.⁵ Following these steps will help ensure the safe and efficacious use of compounding in veterinary medicine:

- Always use an FDA-approved drug if it is available;
- Do not purchase illegitimate/illegal/pirated compounded products;
- Shy away from pharmacies that sell expensive drugs cheaply;
- Avoid compounded products that are sold in large quantities and without a prescription; and
- Ensure that both the veterinarian and owner/caretaker understand the risks associated with using compounded products.

Heated Barns and Horses: Special Considerations Needed

By Oklahoma State University • Dec 26, 2011 • Article #28442

Horse owners who use heated barns to keep water from freezing and to protect horses from frigid temperatures during winter should remember supplemental heat can cause problems if used incorrectly. Ventilation is important when horses are kept inside a barn, said Dave Freeman, PhD, Oklahoma State University Cooperative Extension equine specialist. "Closing up a barn to maintain heat may increase respiratory diseases because of high ammonia content and bacterial growth in stalls," Freeman said.

Closed barns usually have increased humidity. High humidity combined with warm temperature can cause enough nitrogen smell or bacteria growth to irritate the horse's respiratory system. These frequently result in chronic minor respiratory problems that interfere with animal performance.

Freeman said controlled research to define acceptable humidity and temperature levels to lessen the chance of respiratory illnesses is difficult because of the variability between barns, the horse's daily routines in and out of the barn, and lack of controlling research conditions. However many veterinarians attest to an increase in respiratory problems in heated barns with high humidity. "The solution is to turn down the heat and get rid of the humidity by increasing air flow," Freeman said.

Some farm operators have reported beneficial results by installing exhaust fans that move air when the humidity rises. There are methods to make these systems automatic by installing reostats that respond to humidity levels.

Another problem is that while the ideal temperature for horses is around 45° to 65° F (about 7° to 18° C), this "ideal range" might be cost effective or a way to promote equine health. "Increasing the heat of a barn above 55° F (about 14° C) not only can be expensive, it also may have negative effects when moving horses out of the barn into colder temperatures," Freeman said.

Equine managers also need to remember that horses under artificial lighting programs for reproductive or show reasons will shed hair. Therefore, special considerations must be given to protect these animals from cold, windy, and wet weather conditions. Even though hair growth is largely a photoperiodic response, warm environments assist in keeping hair short. Adequate hair cover is extremely important during cold conditions, providing the horse with needed insulation to combat the cold stress of near freezing or freezing temperatures. Frequent movement into and out of heated barns from cold outside environments could, in itself, be a significant source of stress that can be avoided. Freeman said one alternative is to maintain barn temperatures at around 45° to 55° F (about 7° to 14° C) and use blankets to keep horses with short hair coats protected from cold temperatures in and outside of the barn.

"Part of the problem with maintaining proper barn temperature is that people working in the barn often like it a bit warmer than is recommended for the horses," he said. "Horse managers should maintain barn temperatures at a level that will help promote healthy horses and not at a level dictated by a worker's personal comfort." This might require periodic checks by the barn manager to ensure temperatures are set at the proper level. "It's often just a case of human nature. If you're cold, you don't think twice about turning up the heat a bit," Freeman said. "But that oversight can cause health-related problems for horses, which in turn can mean money lost to the horse owner."

Retrieved from TheHorse.com

Winter Care Reminders

Feed: Gradually adapt feed changes (pasture to hay) over a period of time to give the horses' digestive system time to adjust. Also remember that in colder temperatures horses staying outside will need a bigger supply of hay to insure they can keep warm.

Water: It is always important to check the water tanks multiple times during the day to not only make sure there is an adequate amount of water, but also to clear away any ice that may build up.

Shelter: Horses need an area to go into to get out of the elements (snow, wind). It's a good idea to check the shelter for any objects that could cause harm to the horses. Make sure all horses are able to get into the shelter or possibly consider having two in the case of a larger herd.

Blankets: Not all horse owners choose to blanket their horses, but if you do take these reminders into consideration: Always apply dry/clean blankets, use the appropriate blanket for the weather, fix any rips, have a proper fitting blanket, check horse for any sore spots or rubs and ensure all the straps are holding in place on the blanket, and remember to remove the blanket and groom your horse regularly.

Open House News

First off, we would like to thank everyone who came out and enjoyed a beautiful fall day with us at our open house. We really hope everyone had a wonderful time and took home some new knowledge.

Our silent auction was very successful this year! Here are the grand totals:

-MN Hooved Animal Rescue: \$1,227.50

-The Yanish Family: \$583

-Project Astride: \$145

-Lucky's Place: \$90

Thank you again, we cannot wait until the next open house comes around.



Siete Leguas Equine
Veterinary Services
13865 Hollyhock road
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Silver's Equestrian Outfitters

Coupon 15% off any regular priced item

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320-274-0403



Coupon **MUST** be present at time of sale/ one per person/per sale

Expires 2/30/13

Contact Information:

Phone: 320-685-8730

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