

DRUGS AND MEDICATIONS

Medication Use and Joint Therapy for the Show Horse

by Duncan Peters, DVM

The trainer, in many ways, is the steward of the horse for the owner and/or rider. It is the trainer's responsibility to oversee the management of the horse for the desired activity. The main theme of any management program should be proper health and welfare, as well as reasonable athletic expectations of the horse. In many jurisdictions, the trainer may have legal responsibilities for the horse as an agent of the owner. It is therefore imperative that the trainer has adequate knowledge and understanding of medications and their effects (positive and negative) when they are utilized on horses under the trainer's care.

No trainer should ever use any medication on hearsay about its effects or because "someone else is using it." Be sure to know your legal and comfort boundaries when it comes to administering medications. If you are not comfortable, or do not have the legal authority to administer medications, you are obligated to have a qualified person do so. Your veterinarian should be able to assist you with understanding the physiologic effects, and potential detrimental side effects, of any medications.

USEF Drug and Medication Rules

The USEF Drug and Medication rules are a must for every trainer to read and understand. These rules contain both a No Foreign Substance Provision (GR409) and a Therapeutic Substance Provision (GR 410-412).

The Therapeutic Substance Provisions allow for the use of certain medications in the performance horse. They are developed with the welfare of the horse and the integrity of both business and sport as the underlying theme. They are based on sound scientific research studies conducted over many years and the most current information available. These medications are allowed for use as needed on an

individual basis, not as a minimum that every horse should use while in competition. These rules are subject to change based on constantly evolving information and ongoing research concerning medications.

A USEF produced Drugs and Medications Guidelines pamphlet is available through the USEF. Practical guidelines are included in the pamphlet to assist trainers and owners to understand the use of these medications.

The use of some medications requires submitting a medication form to show management at the time of competition. It is the responsibility of the trainer to stay up to date with any requirements and changes. Any questions concerning a specific medication, or the medications rules, can be addressed to the USEF Equine Drugs and Medications Program at (800) 633-2472 or medequestrian@aol.com.

Horses competing in FEI governed competitions have a different set of medication rules. It is imperative that the trainer and responsible person (RP), usually the rider, fully understand the rules and their consequences. Your veterinarian should be aware of these medication rules, also. Many medications have an extended detection time under FEI regulations that could put competitors in jeopardy of “testing positive” if they are utilized within a certain time frame prior to competition. FEI medication regulations can be obtained through your veterinarian or at www.fei.org.

Specific Medication Uses

There are some practices related to medications that may help horses to more comfortably endure the rigors of training, transport, and competition. The use of medication for a specific horse should always be discussed with the owner and your veterinarian. This is important from an economic, legal, and ethical point of view. All parties should be aware of what medication is being given to a horse, and why.

Medications can be utilized on a prophylactic basis (to aid in the prevention of a specific condition) or a treatment basis (to aid in the correction of a clinical condition).

It is imperative that medication is utilized for a specific need in a specific horse, and not just because “all the other horses are getting it.” This does not mean that all horses within a barn cannot be on the same medication; it just means that there should be sound justification for each individual horse to be on that medication.

Gastrointestinal Tract Medication

The use of omeprazole (UlcerGard® and GastroGard®) can have beneficial results in the treatment of Equine Gastric Ulcer Syndrome (EGUS). It has been shown that travelling, confinement, training, competition, and feed changes can contribute to the development of

EGUS. The prophylactic use of UlcerGard during periods of stress or change should be discussed with your veterinarian for your specific horses and needs.

GastroGard is intended for horses that have been definitively diagnosed with EGUS. Talk to your veterinarian about signs and diagnostic procedures necessary to confirm the condition. Both these medications can have significant economic costs to clients. They should be used appropriately and generally not all horses require the medication. If a trainer has a large percentage of horses under his or her care that tend to require this medication, this is a warning sign that current management or training practices should be re-evaluated with the help of outside equine health care professionals.

Some of the oral antacids may be of benefit, but once again, if many horses under your care require this supplementation, you probably need to take a critical look at your overall management practices.

Medication for Joint Health

The adequate health of the musculoskeletal system (especially joints) is a major factor for the performance horse to compete well. The health of this system is dependent on a variety of factors other than medication. Excessive body weight and inadequate fitness for the desired task are the two primary factors that overstress the musculoskeletal system and lead to poor performance and/or lameness. Older horses within our sport develop progressive “wear and tear” of the musculoskeletal system that can lead to stiffness, osteoarthritis and reduced performance. These horses may need some medicinal help now and then, but many can be comfortable and successful with management and exercise programs specifically designed for their concerns. This can be done with, and may include, your farrier, veterinarian, nutrition consultant, and other equine care personnel.

Oral Joint Supplements

A variety of oral compounds are available that all claim to benefit equine joints and performance. Fatty acids, glucosamines, herbal preparations, hyaluronic acid, elemental preparations, chondroitins, unsaponifiables, and combinations of such are some of the products marketed to horse people. There is limited valid research to indicate that these have a significant positive effect to the general performance horse population, but they may aid the isolated individual horse. Any of these compounds and supplements should be evaluated on a cost-to-benefit basis, and after a discussion of your particular needs with your veterinarian.

Injectable Joint Components

Adequan® I.M. (polysulfated glycosaminoglycans) and Legend® IV (hyaluronic acid) are the only Food and Drug Administration (FDA) approved joint therapy/health compounds for intramuscular or intravenous use in the horse. These products

have undergone specific requirement testing for safety and effectiveness for the treatment of inflammation in equine joints. A recommended treatment protocol comes with the FDA approval.

Many trainers regularly utilize these compounds proactively to help “maintain” joint health. This does not mean that every horse will benefit from the use of these products, and in fact, there are questions as to whether they have benefit in a “normal” non-inflamed condition. Many people justify their use for the “subclinical condition”—where some inflammation is likely present but no outward signs of a problem have yet surfaced. Whether or not a true need exists, the specifics of a tailored program should be thoroughly discussed with your veterinarian.

There are many different protocols for usage, dependent on the situation, economics, and individual horse needs. For example: many trainers (under advice from their veterinarians) will routinely use Adequan IM 2 - 4 times monthly and Legend IV 1 - 2 times monthly. Alternatively, many other trainers will utilize these compounds only during heavy periods of showing.

There are other similar compounds available that are being injected for joint health. These are not approved by the FDA. Be aware that there may be some serious liability issues if a horse under your care is given an injection (either by you or by a veterinarian) with one of these compounds and has complications or dies.

Intra-Articular Joint Therapy

A variety of medications are available for the intra-articular treatment of equine joints. Your veterinarian is the best source for determining which medications are appropriate for which condition.

Most treatments are intended to suppress inflammation and to provide components for restoration of the integrity of the joint environment. Joint treatment should only be initiated following a thorough diagnostic examination by your veterinarian that identifies clinical concerns that will benefit from intra-articular medication.

Some individual joints may need repeated treatment over the course of a horse’s career, due to a specific condition. Additionally, there are times when multiple joints may need treatment at the same time for specific reasons.

Intra-articular treatment of a horse may require that you file a USEF Medication Form with the competition, depending on the time frame prior to showing and the medications utilized. Work with your veterinarian to complete the proper paperwork.

There is no valid scientific reasoning for injecting multiple sets of joints at one time (such as bilateral coffin, front fetlocks, hocks, and stifle joints) on a regular schedule (such as every 3 - 6 months) for so-called “maintenance.” Indiscriminant multiple joint injections at one time may present some negative concerns that include possibility of side effects related to higher total medication doses, a cost to clients that may not be needed, liability of injection problems in joints that may not have needed intervention (i.e. infection), suppression of the immune system, and possible laminitis with certain medications.

If a horse requires regular, multiple-joint therapy (more frequent than every 4 months), serious action should be taken to re-evaluate that horse’s physical abilities, clinical condition, performance expectations, and overall management. The trainer

needs to keep the welfare of the horse paramount in all management decisions. Discussions with the owner and veterinarian are necessary to this end.

Hormonal Medication

Some hormonal medications are primarily utilized in mares to regulate the estrous cycle in order to counteract the behavioral aspects of mares in estrus (“heat”). It is generally felt that many mares will lose their focus and thus may not compete as well during certain times during their estrus cycle.

There is a general misunderstanding by many trainers concerning the behavioral manifestations during different phases of the estrous cycle. Therefore, it is extremely important to talk with your veterinarian about your specific concerns with a particular horse, as well as to become educated about behavior during the equine reproductive cycle. Your veterinarian may need to examine the mare to determine where in her cycle she may be, in order to most effectively deal with any behavioral aspects.

There are many forms of progesterone compounds available that profess to keep a mare out of “heat.” Altrenogest (Regu-Mate®) given orally, and injectable generic progesterone solution are the only effective compounds. Additionally, intrauterine devices and a series of specifically timed oxytocin injections can keep a mare “out of heat” for an extended period of time. Conversely, medroxyprogesterone acetate (Depo-Provera) injectable and progesterone-estrogen subcutaneous implants (Synovex® C) have been scientifically tested to determine that they are *not* effective. The belief in these compounds as “mood-modifiers” in either male or female horses is anecdotal, and there is no significant scientific data to support their use for this purpose.

Some injectable conjugated estrogen compounds (estrone sulfate) have been utilized for some diverse musculoskeletal concerns that may involve ligamentous tissues. As these may offer some clinical relief initially, generally management, exercise, and/or farriery changes provide long-term correction of the condition. It is important to work closely with your veterinarian on these conditions for timely re-evaluations and other viable treatment options.

Anabolic steroid use has its rare place in the equine athlete. Testosterone, stanozolol, nandrolone, and oxymetholone are classified as controlled substances and are only available through your veterinarian. They should never be used as a replacement for good management practices and exercise or training regimes, or as a shortcut to an end. There is concern that detrimental effects may exist similar to those seen in human athletes, although these have not been scientifically substantiated in the horse. These compounds may be detectable for long periods of time within the body (a single dose up to 3 - 4 months), so competition schedules should be well planned prior to administration, especially those involving FEI competitions. Consultation with your veterinarian will allow for good stewardship of the horse and appropriate use, as needed.

Adrenocorticotrophic hormone (ACTH) is a cyclically released natural hormone that has an effect to primarily increase the production of gluco- and mineralocorticosteroids, as well as a lesser production of androgenic steroids in the body. ACTH is also released in response to stress and thus by its action affects many metabolic pathways. The glucocorticosteroids produced under the influence of ACTH have both potent anti-inflammatory and immunosuppressive attributes.

The major natural occurring glucocorticosteroid is cortisol (hydrocortisone),

which has activity similar to the medication dexamethasone, and thus there are few instances to use these two medications in combination. Excessive glucocorticosteroids, either occurring naturally or by administration, can cause problems with energy metabolism, muscle loss, reduced ability to fight infections, decreased ability to perform, abnormal fat deposition, and possible laminitis.

There is some evidence to suggest that glucocorticosteroids can blunt the fear response of individuals and thus ACTH's use for "calming." ACTH is available in an injectable form with significant cost. Your veterinarian is the best source as to whether or not your particular horse is a candidate for ACTH therapy.

Elemental/Vitamin Preparations

There are many vitamin and mineral preparations available in supplement form for the performance horse. The large majority of the needs of the performance horse in the hunter and jumper disciplines are more than adequately met by the nutritional feedstuffs consumed by the horse. Good quality feedstuffs and good management practices will enable the horse to compete to their physical ability.

The beliefs that vitamin and elemental preparations can appreciably affect the behavioral aspects of the horse in competition are not backed by scientific research. The specific use of IV injectable compounds such as magnesium sulfate or Lactanase (a solution of B vitamins) should be carefully considered in relation to potential benefit vs. cost to client, the fact that daily IV injections must be given, and possible liability to any adverse reactions. Individual horses, in specific instances, may benefit from these or other herbal preparations, but care must be taken and discussion with your veterinarian is always warranted.

The routine use of medications is not a necessity for horses to perform well. Proper horse selection for the desired activity or rider, exercise management (at home and at the competitions), nutrition, foot care, responsible training methods and overall good horsemanship are infinitely more important than any medication that is administered to the horse. Additionally, the routine use of medications can have some significant detrimental effects in isolated cases. The ultimate goal for all trainers should be to have their horses perform well for their clients by being adequately trained, medically healthy, placed at the appropriate competition level, and properly ridden without the use of medication.