Welcome to our Autumn 2010 issue

Welcome to the fall Veterinary Newsletter. Hope everyone is enjoying the fall colors. While it is still some time away, I would like to invite and encourage you all to attend next year’s Veterinary CE day, held the Thursday before the AERC National Convention in Reno, Nevada, on March 3, 2011. The focus this year will be a Symposium on Acid-Base and Body Fluid Management in the Endurance Horse, in memory of Dr. Jim Steere. In addition, we will have repeat of our much-applauded lameness seminar in an expanded form after dinner. We are planning a long day and evening, but it promises to be well worth the trip! Best wishes to you all during the upcoming holiday season.

Warm regards,

Jeanette L Mero, DVM, Chair, AERC Veterinary Committee

Rule Changes for the 2011 Ride Season

by Melissa Ribley, DVM

There will be several changes in the 2011 AERC rules that control judges should be aware of. Most of these changes have to do with the drug rule appendices and following is a summary of those changes.

1. Pergolide. Pergolide, a prohibited substance, now has a known detection time of 7 days.

2. Ice/ice water. The use of ice boots and other means of applying ice/ice water topically has been allowed and will be continued to be allowed. However, the Veterinary Committee received questions about the use of devices that circulate water with compression and that can possibly cool below 0° Celsius. The update to our rules will specifically allow the use of compression wraps as well as devices that circulate ice water. However, the use of devices or substances that cool below 0° Celsius will be prohibited.

3. Magnesium. Magnesium was previously listed on the prohibited list. This will be changed to list magnesium as allowable for the purpose of electrolyte supplementation. Magnesium will remain prohibited when “administered for the purpose of and at the levels of providing a calming/tranquilizing effect.”

4. Yucca. Yucca was previously listed on the prohibited list. This will be changed to list yucca on the allowable list as “Yucca as a feed additive for the purpose of and at the levels of ammonia reduction and intestinal health.” Yucca will remain on the prohibited substance list when “administered for the purpose of and at the levels of providing anti-inflammatory effects.”

5. Arnica. Arnica will be added to the prohibited list.

These changes were made based on questions and recommendations from AERC veterinarians and members. The drug rule appendices are updated annually with the goal of making the drug rule clear and straightforward as a reference guide to allowed and prohibited substances.
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Duane Barnett, DVM, and Melissa Ribley, DVM

Rule Changes for the 2011 Ride Season . . .

Congratulations to AERC-Certified Vets

The following veterinarians have passed the AERC certification exam since July 15. The complete list is online at www.aerc.org/CertifiedHeadVets.asp.

Laurie Bohannon, DVM (W)
Karina S. Cox, DVM (PS)
Tamara Dobbie, DVM (NE)
Lisa Eskridge, DVM (MT)
Steven Haymore, DVM (NW)
Scott Lewis, DVM (SE)
Shannon L. Loomis, DVM (MW, NE)
Jerry D. Long (W)
Robert W. Marshall, DVM (NE)
Russell Voigt, DVM (MW)
Kelly Zeytoonian, DVM (W)

Haven’t taken the exam yet? You may request one by contacting the AERC office, or download the examination, answer sheet and evaluation form online (on the Vets / Forms page).

This is a small change, but should assist in making it more clear as to what treatments are specifically prohibited during competition.

If you would like a hard copy of the drug rule appendices that list prohibited/allowed substances and treatments, please contact the AERC office. The revisions will be available on the AERC website after December 1.

The AERC Veterinary Committee listens to input on the drug rule appendices and works to update these so as to make our drug rule as practical and useable as possible. Please send in your suggestions to a member of the AERC Veterinary Committee.

SAVE THE DATE!
Thursday, March 3, 2011
AERC Veterinary CE
Grand Sierra Resort & Casino
Reno, Nevada
This full day (and evening) of informative speakers—meals included—will keep you abreast of current topics in endurance horse health for veterinarians, and provide CE units (hours to be determined).

CE registration info will be coming to you by mail this winter!
How Not to Judge Lameness at Endurance Rides

by Nick Kohut, DVM

For those of you now cleaning off your reading glasses, that is not a typo in the title of this article. I’ll leave the difficult task of trying to put into words the intricacies of body movement which constitutes lameness to those with more letters behind their names. Instead, for my purposes, I’ll go out on a limb and assume everyone reading this article can differentiate a sound horse from a lame one.

The goal of my article is to bring to light a black mark that unfortunately can follow a veterinarian throughout his or her AERC career. What I’m referring to is the appearance to competitors that certain veterinarians are trigger-happy when it comes to pulling horses for lameness. Those of us who have been in the sport for a number of years probably have no difficulty thinking of several fellow practitioners who rightly or wrongly have that reputation.

Granted, the AERC Guidelines for Judging Endurance Competitions states: “Grade III lameness or greater for any reason should be disqualified at any point at which it is revealed, including on trail and at the finish line control check.” Any control judge is within their rights to pull a Grade III lame horse. A concern of riders is what is considered fair. Let’s look at some real-life situations and see where the problems arise.

Example 1. A horse competes in a ride and has shown no evidence of lameness at any of the holds. The horse is walked down the driveway to the final vet exam and trots out dead lame—Grade IV in the right front. The rider picks up the right front hoof and finds a driveway stone wedged within the shoe. It’s already been stated that a Grade III or greater lameness should be disqualified regardless of the reason. What would you do? Here’s what I did. After the rider had the stone removed from the hoof—it required a screwdriver to pry it out—he retrotted the horse and it was sound. The horse was given a completion.

Example 2. A horse comes into a hold and is presented to a control judge after having reached the pulse criteria. The rider tightens the horse’s girth prior to trotting out to keep the saddle from slipping. The horse trots out consistently lame in what appears to be a left front/right hind diagonal. Pull the horse? After the trot-out, the rider was asked to remove the saddle. It was found that the saddle pad had bunched up and when the saddle was tightened it put undue pressure on one side of the horse’s back. The horse was not found to be otherwise back sore. The horse retrotted sound.

Example 3. A horse presents at the last away hold of a 75-mile ride. There’s been an abrupt, deteriorating change in the weather (we all know how accurate weather forecasts can be) and due to circumstances beyond anyone’s control the vetting has become backed up. The horse has been waiting in line without a blanket for some time before being checked. It trots out with a consistent hitch in its right hind. During the remainder of the exam a knot is found in the muscle of the inner thigh. All other parameters are As. Do you arrange for a trailer ride back to base camp? The rider was advised to go and blanket the horse and try to gently massage away the cramp. They are told to represent in 25 minutes. The horse went on to complete the ride with flying colors.

While some of you may be thinking these are straightforward examples of how to handle certain lame horses, I have heard riders speak of identical situations in which their horses were pulled. These types of scenarios happen in every region AERC covers.

Speaking for the Northeast Region, the philosophy of judging is to try our best to help riders and their horses complete the rides in a safe and enjoyable manner. It is not to find how many can be eliminated. When it comes to issues of lameness, the general consensus is that if there is any question of allowing the horse to go on or not, the horse is given the benefit of the doubt and we allow the trail to sort it out.

The Judging Guidelines discuss considering the prognosis of the lameness and the risk to the athletic future of the horse. The problem is that the guidelines list this in regards to Grades I and II lameness with no consideration being given to higher grades. Looking at the examples given, were the future athletic abilities in danger? I’d say a resounding no. Could the riders have been more alert and taken better care of their horses prior to judging? Probably they could have done so.

Where some judges get themselves in trouble is by making snap decisions. As a judge, you often have one or two options to help eliminate that situation. First is by having another judge available to consult. As the say—continued on next page
“Two heads are better than one.” In our area, we generally try to have two judges at every hold. With two judges making the call there is less chance of a rider feeling any particular judge has a bias.

Remember, don’t be intimidated into agreeing with another veterinarian if you feel different than they do on the degree of lameness. There are numerous times where the judge who asks for aid in watching a potentially lame horse trot will change their mind on the degree of lameness.

By having someone other than a “dead on their feet” rider trot out the horse, a horse that had an unintentional head bob from being jerked upon can have a miraculous lameness cure.

On a side note, one of my pet peeves is watching someone trot out a lame horse over and over again. Not only is that unfair to the horse, but it gives the impression that the judges have no clue what they are doing. By definition, Grade III lameness is consistently observable at a trot under all circumstances. If you can’t determine that on a single trot, either send the horse out to have the cause of the lameness diagnosed and resolved or have another judge watch with you for a second trot. If no consensus is reached between the judges after a second trot, give the horse the benefit of the doubt and let it continue.

A second option is to use the hold time to reassess the horse’s gait. This works here in the Northeast because of our riders’ philosophy on utilizing their hold time. Riders generally come into a hold, try to reach the pulse criteria as quickly as possible, present to the control judges, and then allow their horses the remainder of the hold time to eat, rest, and prepare to continue the ride. Other than the post-ride completion time, AERC has no rule governing how long a rider takes to pass non-pulse criteria at a control checkpoint.

I don’t believe it is unreasonable to allow a rider a limited amount of time to try and correct a minor cause of lameness. I’ve had horses trip while trotting out (how often do we have a “perfect” trotting area?) and come up lame from a mild sprain. Is it not reasonable to allow that horse 15 to 20 minutes to recover? Had it happened on trail, the rider would have had the opportunity to walk it out.

There will always be times when a horse needs to be pulled for lameness and the rider is either unable or unwilling to accept the outcome. There are times that we as judges are forced to make the hard call, but we are charged with placing the horse’s best interest above everything else. Rules are rules. However, fair is fair. If a reason can be found for a horse’s lameness and it can be corrected in a short period of time with no threat to the horse’s athletic ability, is it not fair to judge that horse as fit to continue?

**HAVE YOU RENEWED YET FOR 2011? IT’S RENEWAL TIME!**

**2011 AERC Veterinary Membership**

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Veterinary Exams at Endurance Rides

by Jamie Kerr, DVM

This article originally appeared in the February 2007 AERC Veterinary Newsletter.

The intent of this article is to review the general principles and philosophy of veterinary examinations of endurance horses.

The welfare of the horse is of paramount importance to the sport of endurance. The rider, of course, is solely responsible for the well-being of his or her horse. Yet, it is up to the ride veterinarian to make important judgments on soundness and metabolic status, under significant time constraints and limited space. The exams are often cursory yet require us to draw from all of our veterinary experiences.

Riders often speak of, or complain about, the differences in the way exams are performed. Their perception is that one exam appears more thorough than another. Some veterinarians also feel that some of our own may be less thorough than we should be in examining endurance horses. Having said that, we all have to agree there is no way to standardize or regulate exactly how to conduct examinations of endurance horses. We can make recommendations and establish guidelines (e.g., see Veterinary Guidelines for Judging AERC Endurance Competitions) but every veterinarian has his or her own method exam and his or her own style and approach to them.

Although these differences in “style” can appear to vary greatly, we all have the same goal: to answer the important question, “Is this horse okay to go on?” Whatever our individual style may be, we should take every exam seriously throughout the ride, and not become complacent. We should recognize that we each perform our exams differently and we should not be too critical or judgmental about those differences while also being open to professional, constructive discussion about improving our exam skills to benefit the horse and the sport.

In addition to our individual style of examination there are other aspects of endurance rides that affect the method or type of exam performed. These include:

Level of experience

Veterinarians new to the sport often take more time evaluating a horse when compared to an experienced vet. This can impede the flow of horses through a checkpoint. It is important for experienced vets to mentor and advise these vets on how to expedite their exams, especially when it comes to recognizing subtleties of a tiring horse or an impending metabolic problem. Share your expertise!

Point in the ride

The pre-ride exam. Usually more time and space is available for the pre-ride exam. In addition to performing a physical exam of the horse, this is a good time to communicate with the rider about the horse’s level of fitness and experience; what the rider’s intent is regarding racing vs. finishing; how the horse traveled; did the horse drink well; were there mucous-coated feces in the trailer, etc. Establish a rapport with the rider!

First vet check. These typically are within the first 10 to 20 minutes of the start. The horses should still appear fresh. Some may not have drunk well or at all. They may come to the check in large groups. Look closely for signs of myositis or tiring!

Lunch stop or midway vet check. This is an important point in the ride to be observant in our exams. Horses that will most likely complete the ride are at this point beginning to replenish their fluid, electrolyte, and energy deficits they’ve acquired during the early part of the ride (remember, the majority of fluid and electrolyte deficits occurs in the first 25 miles of a ride), i.e., they should be eating and drinking.

Use of the CRI is very important at this check, and the remainder of the ride, to identify horses not recovering well. Communicate with the rider as to how they think their horse is doing. Compare your impression and exam findings of each horse with the other horses at that point of the ride!

Third vet check. Horses are tiring. The CRI is imperative as a parameter at this point. Communicate with the rider regarding the horse’s drinking, willingness to move out, etc. Remain vigilant in examining metabolic problems, not only with the front-runners but with all the horses. It is often the last leg of a ride that metabolic crises present themselves!

Completion or post-ride exams. These include top ten, which of course get a more thorough going-over for best condition consideration, and the rest of the finishers. It is easy to become lax in our exams of the “rest of the pack” at the finish. Don’t let that happen!

continued on next page
Remember that fluid, electrolyte and energy deficits continue to accrue after the completion of a ride, especially after adrenaline levels have abated and the horse has let down. Remind the riders of that fact and caution them to continue to monitor their EDPP (eating, drinking, peeing, pooping) of their horses!

**Number of vets available at each stop**
This can obviously affect the quality of our exams and we should strongly encourage ride managers to employ adequate numbers of vets to assure that quality examinations can be performed.

**Axioms to keep in mind**
There are also some general “axioms” typically employed in examining endurance horses and these should be kept in mind:
- We are not performing pre-purchase exams on these horses. We need to be mindful of the flow of the ride.
- These horses are not being presented to us for chronic, intermittent, subtle lameness evaluations. They are >Grade II lame, or not.
- If in doubt about a lameness, and there is no obvious developing pathology, let the trail sort it out.
- If in doubt about a metabolic issue, perform a CRI (cardiac recovery index), do a recheck exam after some time or before allowing the horse back out on the trail, get a second opinion from another vet, or err on the side of caution and pull the horse.
- Trot-outs should be done prior to palpations and flexions.
- Palpation and flexions of limbs should not be severe in intensity or duration.
- Palpation of backs should include an initial light, desensitizing stroke down the back and then with the flat of the hand.
- Perhaps the most important is that we should look at the whole horse as it approaches, its demeanor, level of energy and alertness—this often gives us the best clue as to their “fitness to continue.”

Horses are certainly capable of traveling 50 and 100 miles in a day but they don’t do it on their own, in the times and at the speed that the sport of endurance asks; they don’t do it unless we ask them to. By far, most horses complete the task in okay shape but on average, six per year die trying. We all know in our hearts that is exactly what we try to prevent. Essentially, our best and only tool is our examination at each vet check.

This article is not meant to dictate how that exam should be done; rather, to remind us of the fact that we are all veterinarians and know how to evaluate horses, that we have different styles and methods to accomplish a similar goal. We need to accept our differences and communicate with each other and constantly strive to improve and refine our technique of examining endurance horses.

**LD Riding vs. LD Racing: What to Watch Out For**
by Jeanette Mero, DVM

The limited distance division was created some years ago as separate section to accommodate young horses, novice horses or riders, or riders who just choose to ride shorter distances than the traditional endurance competitions. In the beginning it was viewed by many as purely an entrance division, to be used as a stepping stone up to the longer distances. Although this view continues today with some, many riders choose to remain in the LD division their whole careers for health or personal reasons.

This practice of riding LD by more seasoned riders with seasoned horses has given rise to “racing” in the LD division. This is not a bad thing in and of itself, provided the horses are well-conditioned and the riders are experienced. Indeed, in much of the country, the LD division is the single largest division attended at endurance rides.

Some statistics show that the LD division enjoys the lowest treatment and fatality rate of all the divisions, by nature of how much less distance they travel. Many experienced control judges report that the LD division is easy to vet, the riders are pleasant—and usually knowledgeable—and are just out to have a safe and good time. However, there is a recipe for disaster that every control judge must be made aware of: the inexperienced rider a with strong competitive drive to win, coupled with not enough knowledge of the consequences of their competitiveness.

Many of us have recollections of disasters that have shaped our judging philosophy. Mine was centered on a self-proclaimed cowboy who rode a mature palomino horse nearly to its death during an LD ride here in the ...
Mariposa. How the horse survived I don’t know, I surely don’t think it was because of any magical treatment I performed. The incident upset a lot of people in camp that day. Many riders treated this person harshly for his supposed callousness at over-riding his horse. However, it became clear to me—while trying to save the horse’s life—that the rider was not mean or cruel; he was simply ignorant and thought his horse was fine, until suddenly it collapsed on the trail.

This one case affected me so intensely it paved the way to my involvement on the AERC Veterinary Committee years ago. With that case I took home the profound knowledge that we as endurance vets must never assume the LD division is an easy day, with no potential lurking disasters. In fact, I think to the contrary, we need to pay closer attention to the LD division while control judging because the shorter distance attracts riders that might otherwise think a longer distance is too scary or hard to try.

These shorter rides often bring out people from other parts of the horse industry who think an LD ride can’t be all that hard. I have seen in some of these LD novices a distinct lack of respect for the distance the horse must travel in an LD ride, compared to novices in the longer divisions. Perhaps the LD division is just not intimidating enough to make some of the novice riders prepare adequately, or ride more responsibly.

In a recent case that is unfortunately not unique, an upset head control judge called me about the winner of an LD ride. The rider had won by more than two hours, and worse yet the rider was only on her second or third endurance ride ever. The rider received her completion, but as she came back up for her BC judging her horse collicked. The horse went on to recover with little to no medical intervention, but the vet called more out of concern that this rider just did not understand the gravity of the situation. He was worried the situation would likely repeat itself with perhaps more disastrous results next time.

When I called the rider to consult with her, she was enthusiastic about learning more about endurance riding but her knowledge base was limited to none. When I asked her how fast she was going during the ride she did not know. When I asked her how fast and how far she trained at home, she did not know. When I discussed feeding, proper conditioning and a host of other endurance issues, this rider did not know much. This rider and her horse are a train wreck waiting to happen, as her exact words to me were, “I want to win when I ride.”

I share these examples with you simply to raise the awareness amongst those of us who are practicing endurance vets to be vigilant for the novice LD rider that may be going too fast. I am not saying we should spoil the fun for experienced, seasoned rider/horse pairs in limited distance.

As you are giving your pre-ride briefing pay special attention to the novice riders in all divisions, as they are often the ones who need your advice and counsel the most. Speak with them separately after the meeting. Familiarize yourself and your other control judges with these riders to try to get a handle on their knowledge base. During the ride pay closer attention to them and their horses and do not assume these riders are able and capable of monitoring their horses adequately. Never hesitate to offer advice on pacing, feeding during holds, electrolytes, water intake etc.

Stand your ground and do not be afraid to demand the rider slow down if you think they are going too fast. You have the right and the responsibility to insist they slow down if you sense a coming problem.

Perhaps some of us tend to worry more about the longer distances, believing the limited distance division doesn’t “need” us as much. Do not fall prey to this assumption. Be proactive at the rider briefings, and be watchful and dispense advice as needed before, during and after the ride. Hopefully, being vigilant and aware will help reduce those terrible disasters that all of us hope to avoid.

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Coming this November: AERC Veterinary Committee ELECTIONS

All AERC veterinary members are eligible to run!

Send in the enclosed nomination form or call the AERC office at 866-271-2372. There is no nomination fee required.
When a horse sustains a serious injury to articular cartilage in one of its joints, a repair process occurs in the wound. The hope of the horse’s owner is for the injury to sufficiently heal and restore normal joint function. Unfortunately, for much of the horse’s life, there is a high probability that osteoarthritis will cause chronic pain and compromised joint function.

Through research performed at the Gluck Equine Research Center, Jamie MacLeod, VMD, PhD, and Michael Mienaltowski, DVM, PhD, studied the repair tissue that forms within full thickness lesions of articular cartilage. This project was conducted in collaboration with equine orthopaedic surgeons David Frisbie, DVM, PhD, and Wayne McIlwraith, BVSc, PhD, FRCVS, DSc, DMV, DACVS, at Colorado State University. The research was published in the open access journal *BMC Medical Genomics*.

Repair tissue from full-thickness lesions, which received arthroscopic debridement and microfracture treatment (a procedure performed to remove damaged tissue and create small holes into the underlying bone tissue to allow blood and cells access to the lesioned area), was compared to normal articular cartilage of the distal femur (thigh bone) in horse stifles four months after surgery. When the tissue was examined microscopically, the relatively normal cartilage surrounding the lesion looked clearly different from the repair tissue within the injury.

**Key differences were:**
- The repair tissue did not restore normal cartilage structure
- The edges of the repair tissue did not integrate well with the surrounding cartilage
- By special staining, in most cases, repair tissue seemed to be missing proteoglycan, a key molecular component of normal cartilage that helps provide compressive strength to cartilage
- A smooth articular surface was not restored by the repair tissue.

In this study, we concluded that repair tissue occupying full thickness articular lesions is functionally very different from normal articular cartilage. The cells within repair tissue do not achieve a normal pattern of gene expression necessary to restore and maintain healthy articular cartilage structure and function. Future research should focus on how to direct the cells in repair tissue to function more like cells in articular cartilage. New treatment options could allow for better, more cartilage-like healing which restores the structural and biomechanical integrity of the joint surface.

Michael Mienaltowski, DVM, PhD, a post-doctoral research fellow at the University of South Florida, Department of Orthopaedics & Sports Medicine and Department of Pathology & Cell Biology, completed his PhD research at the Gluck Equine Research Center supported in part by a grant from the Morris Animal Foundation.