

Outbreak 2006: After the Crisis, Part II

In the conclusion of this two-part series, *The Equiery* continues to examine Maryland's latest equine herpesvirus (EHV-1) outbreak and responses to that outbreak. To read Part I of the series, go to www.equiery.com.

Vet Leader Talks Virus

The Equiery sat down with Michael Erskine to get his thoughts on the recent EHV-1 outbreak. Erskine is president of the Maryland Horse Council and past president of the Maryland Veterinary Medical Association. He is also a member of the American Association of Equine Practitioners, as well as a Diplomate in the American Board of Veterinary Practitioners. In addition, he serves on the board of the Maryland Association of Equine Practitioners (as the MAEP representative to the Maryland Horse Council) and is a member of the Marion duPont Scott Equine Medical Center Advisory Council.

Erskine works with Damascus Equine Associates, which was instrumental in monitoring the previous herpes outbreaks at Poolesville and Columbia.

Q: Dr. Erskine, the Maryland Department of Agriculture recently made "equine neurologic syndrome" a reportable disease. Do you think that some horse owners might refrain from reporting suspected cases, for fear of their stables being shut down?

A: I think that if the MDA is viewed as a responsible party, a partner in management, that's a low risk.

That's one of the reasons I supported their staged response initially; it's not excessive. As long as it's scientifically justifiable, I think we can all embrace it. And I think that's what they've demonstrated so far.

Q: Given the dangers of the neurologic version of EHV-1, should horse owners and the MDA be taking the respiratory form of the virus more seriously?

A: I think that during the outbreak, they did have other parameters that caused a horse to be suspect. So they did have a non-neurologic standard as well – fever, for example – for at-risk horses. I think that the first case in a new place is going to be a higher threshold in order to trigger state involvement, and I think that once that first case has triggered the involvement, then the threshold tends to drop to where fever is enough. I don't foresee fever alone being sufficient to bring in a state action.

One thing that I believe is starting to happen, which is good, is increased horse owner awareness ... I can certainly see it making people more likely to test horses with fevers.

There's a finite resource [at the MDA], and they have the authority to do certain things and not to do other things. Food supply animals are higher [in priority] than non-food supply animals, and contagious diseases are higher than non-contagious diseases. When you're looking

at their mission with avian influenza and the support of diagnostic labs generally, and put that against the cost of resources necessary to put a disease investigation or an investigational hold on barns that are at a low risk – they do a risk assessment, and they need the discretion to do that. What is the risk, and then, what's an appropriate response?

As far as education of the public [goes], maybe that's where, to me, the state can be viewed as setting a minimum standard. I don't think there's any reason at all for us not to try to work above and beyond that. Fair Hill was, I think, a voluntary restriction of movement, working with the state and making the state aware, even if they weren't going to actively pursue it at that time, they were going to monitor the situation. It was a good use of [state] resources, and proactive.

Q: Do you feel that current MDA protocols are adequate for handling outbreaks like the last one?

A: I think so. I think they're going to be reviewed. I think that with everything that was available to them at the time, they were sound judgments, justifiable – and in large part, effective. I don't think the expectations can be that they would arrest the disease. The outbreak [had] already begun, so it was [a matter of] control and containment. Not that it couldn't be improved in the future, but I think that with the information they had at the time, the judgments were good, and their responsiveness was good.

It's not that things can't change ... and I'm always in favor of revisiting things. But I think we have a role in the health of our animals, and I don't think we should look to the state as the only protector of our horses' health ... they're very good at what they do, but we need to acknowledge what the scope of their mission is.

Q: Do you think that at some point, because of the possible economic ramifications of closing a racetrack, track owners might institute standardized health care requirements?

A: I think this would only be practical if we knew what the ideal was, or what the standard should be. I think it's more complicated than [giving a certain number of vaccinations per year]; it's a judgment. I do know that some of the boarding stables have [similar] requirements, but I guess that, to me, health care is very individual, very personal; it's between me and my clients to come up with what we want to do. And the ones that I think are the best-managed boarding stables have accepted this, and say something like, "Your horse has to be vaccinated and de-wormed, either on our schedule or your vet's schedule," but it's not going to be untreated.

I could see it being like almost like trails;

trail users have an unwritten code of "pack it in, pack it out." So I think you could almost do that through public awareness and public education, so it's like, "What do you mean, [your horse is] not vaccinated? Then I don't want to be next to you. Take care of your horse, and then we can talk!"

Q: If EHV-1 can lie dormant in a horse's system for some time, can it in fact appear to erupt spontaneously?

A: It's a herpes virus – a latent infection – and perhaps can be lifelong. I suppose you always figure that it was a disease brought into a facility by the last horse who arrived.

It very well could be that there was a horse at the facility who experienced a recrudescence of the disease and shed it, and it started right there. The first affected horse was homegrown, and at the farm already.

Some experts suspect up to eighty percent of horses may have latent herpesvirus infections. And stressful events like trailering can cause recrudescence of the infection and active shedding of the virus.

Q: What are the modes of transmission with EHV-1?

A: Known modes of transmission include horse-to-horse contact, inhalation of aerosolized virus, and contamination of equipment or personnel.

Q: Quarantine conditions often require reduced ventilation and exercise, which could lead to secondary health problems, particularly during flu season. Is there a point beyond which such measures become impractical, even risky?

A: I think that's the risk of doing too much ... you harm yourself in the long run. The risk of doing too little is that the disease spreads. And they're competing risks; they need to be balanced. One person's view is going to be all about protection – that they should have done everything. And another person's view is, "Oh my gosh; how did I get swept into this? I was only there once." And I think the state's responsibility is to employ scientifically justifiable measures, and that's what I think they are trying to do.

Both concerns have merit ... and we saw some of that [during the recent herpes outbreak]. I also think that this does permit – and should – some discretion from a clinical standpoint, because these are not black and white [diagnoses]. Disease diagnosis evolves over the days or weeks it takes to get results, and there is a role for people to come in and make professional judgments about it, whether it's the private veterinarian or the state officials.

Some of the discussions that are occurring as far as what can we do to protect, and what should we do when the disease is occurring ... a lot of that is risk assessment and cost

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and benefit assessment: What's the impact of the disease, the cost of implementing a control measure, and what are the potential benefits? The impact of the disease is the loss of life, and the efforts and resources extended to care for a sick horse, and all of the supportive therapy that's delivered.

There are judgments that are made as you're going forward, and the results of your judgments are known – and then,

once the results *are* known, there can be second-guessing or critiques. It isn't always unhealthy; I think some of it is constructive. My view is due deference to their judgment and the progress we've made in the last years. The world is different, and these are individuals working within an institution, so I think they deserve to be complimented and supported for what they've done right and worked with in order to improve it for next time.

I think [the MDA officials] have been very professional and very responsive – even on the fly, they've adjusted their communications in order to be more responsive. They began by just reporting periodically when things changed, or no news was good news, or when everything stayed the same, there was no news release. Last year, at Columbia, I think we did twice-weekly conference calls, and then we'd do a press release. This year, they began a similar protocol – and they updated that with a website.

This is an opportunity for increasing awareness of all infectious diseases.

Q: Are vets and officials learning anything with each new outbreak?

A: The state did use lessons learned from Columbia at Pimlico. Some of the testing protocols were the same, and establishing some of the thresholds for taking a horse from exposed status to suspect disease status ... I think the testing protocols and establishing the limits of the investigational holds, and how long they would hold horses, what the criteria would be to release the investigational holds.

I think a lot of people do feel that the disease has changed in the last five years or so. There seems to have [been] an increased incidence and severity. Certain mutations of the equine herpesvirus-1 have been identified in the neurologic form of the disease. Research into the disease and improvements in technology have led to increasingly sensitive diagnostic tests and will hopefully lead to new vaccines.

And whether [the change is] because of the virus, or because there's more travel, there are more opportunities for the disease to be expressed. We have a year-round horse season, with all the indoor arenas ... maybe you didn't train as hard in January 10 years ago because you didn't have an indoor arena. But now everybody does, and you have winter circuits, and people are traveling, their horses are fit, and they can go down and spend a week or two in Florida.

Q: Is there anything that the average horse owner can learn from this latest outbreak?

A: I do think this is an opportunity for increasing awareness of all infectious diseases, whether neurologic or GI or something less common. I think "bio-security" sounds like a regulatory phrase ... but a lot of it is pretty straightforward, like not commingling your horses, or bringing your own equipment or water supply to a horse show. Or maintaining a vaccination program for all infectious diseases that your horse is at risk for: good health care.

It does speak for a good preventative medicine program [including] vaccines and even typical health care like worming, because parasitism and debilitation are stressors to the immune system. A healthy horse is less at risk, and appropriate vaccinations for the diseases you're at risk of is kind of an appropriate thing. When you're done working with your horse, wash your hands – it's pretty straightforward.

I don't think it's productive to go in and second-guess anybody and hold them to the same standards that we would in 20/20 hindsight, and blame them for it. But going forward, you start to think about open herd and open stables, and you know, you do take some precautions. And these are things that have been talked about for years – grouping horses by age; you don't run the babies with the adults, or the resident horses with the transient horses. Just a few little barriers make it a little inconvenient for the virus to spread as effectively, and maybe that's all you need to do to weaken the transmission route.

Equine Health Advisory Committee Launched

The first meeting of the Equine Health Advisory Committee was held April 6. The mission of the committee, which is made up of representatives from various aspects of the equine industry, is to advise the secretary of agriculture and the state vet's office on matters related to health, disease control and protocols.

The committee was created after the community and the leadership at the Maryland Department of Agriculture discovered several problems in the wake of the first herpes crises in 2004. These included the fact that the state's list of reportable diseases had not been updated in over a decade, and that it needed to reconsider and redesign its quarantine and Hold Order protocols to meet the needs associated with new, emerging diseases.

The following individuals were appointed to serve their respective segments of the industry: U of MD College of Ag. & Nat. Resources: Dr.

Amy Burk
Maryland Association of Equine Practitioners:
Dr. Elizabeth Callahan
VA-MD Regional College of Vet Medicine, MD
Campus: Dr. Katherine Feldman

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MD Horse Council - Licensed Stable Operators:
Karen Fulton

MDA, Office of State Veterinarian: Dr. William
Higgins & Dr. Marla Stevens

MD Horse Council: Dr. Doreen Hill

Maryland Racing Commission: J. Michael
Hopkins

MD Veterinary Medical Assoc.: Dr. Amy Polkes
VA-MD Regional College of Vet. Med., duPont
Scott Equine Medical Center: Dr. Nathaniel
A. White II

Race Track Practitioners: Dr. Kathy Anderson

MD Horse Industry Board: Erin Petersen

MD Horse Industry Board: Dr. John Lee, Jr.

Ex-Officio

MDS Secretary: Lewis R. Riley

Technical Advisor: Crystal Kimball

Staff

MHIB Executive Director: J. Robert Burk

Administrative Assistant: Tonya Kendrick

Understandably, discussion began with the most recent herpes health crises, as well as the recent increases in necropsy and disposal fees at Maryland state labs. The committee expressed concern about the responsibilities for costs of necropsies and other lab tests in the event of a state-issued Hold Order, and requested that MDA present WRITTEN policy regarding responsibility for the costs of necropsies and other diagnostic tests that are incurred or are required as a result of a state-issued Hold Order.

The committee agreed – and recommended – that in the event of a state-issued Hold Order (which cannot be lifted until diagnosis is confirmed and the appropriate disease-related protocols followed) the state has the responsibility to cover the costs of not just the first necropsy, which may or may not provide enough information for a conclusive diagnosis, but the costs of all subsequent necropsies and lab tests until a diagnosis is confirmed.

The committee also reviewed the testing equipment available in the state labs, and recommended the purchase of certain equipment due to the volume of certain tests that are currently being sent to out-of-state labs and which have long turnaround times.

For the next meeting, the committee wants to renew the new reporting requirements based on neurologic symptoms, as many of the committee members believe the definition to be too broad and that one of two things will happen: The system will become overwhelmed, or vets just won't report at all.

In addition to reviewing matters related to the current health crises, the committee will also be reviewing and recommending methods for improving communications within the equestrian community regarding contagious, infectious diseases; reviewing and recommending improvements on state handling of some of the more routine health care issues, such as how Coggins tests are conducted and filed with the state; and reviewing current statutes and regula-

tions related to equine health.

The public is invited to share its comments or concerns. You can contact the representative for your segment of the community by visiting www.eququery.com, clicking on Maryland Horse Industry Board, and selecting Equine Health Advisory Committee for a complete list of contacts. Alternatively, you can contact one of the co-chairs: Dr. John Lee, 610-932-6800, JWLee@Zoominternet.net; or Erin Petersen, 301-405-4690, petersdr@umd.edu.

Blueprint for Equine Health Emergency Alert Protocol

by Ellie Trueman

Whether assessing the issue of an outbreak of the equine herpesvirus, another contagious disease, a natural or chemical disaster, or a bioterrorism threat that may affect horses, what becomes abundantly clear is that the Maryland horse industry is not prepared to communicate with a large percentage of horse owners across the state in a timely and effective manner. Given the times and our proximity to Washington, D.C., having an effective communication network in place to serve as an alert mechanism and/or to facilitate an emergency evacuation seems reasonable and warranted.

Additionally, an equine alert network can virtually eliminate the rumors and misinformation that spread rampantly during an equine health related incident.

I would like to suggest that the Maryland Horse Industry Board, in concert with the [Equine] Health Advisory Committee, consider the following:

- I. The establishment of a **Maryland Equine Alert (and Emergency) Database**. Suggested core elements of a basic database to include:
 - A. Licensed Veterinarians
 1. Addresses (ideally, both professional and personal)
 2. Telephone numbers (ideally, both personal and professional)
 3. Cell phone numbers (optional)
 4. Professional e-mail addresses (with the option to include their personal e-mail addresses)
 5. Database fields should record large animal applicability
 - B. Horse Owners (by election)

Promote, via extensive PR and notification to equestrian associations, the establishment of the Maryland Equine Alert Database. Encourage all Maryland horse owners to voluntarily submit their e-mail addresses. Ensure double blind verification. Provide guarantee of database security and limited availability and information access. It is the sole responsibility of horse owners who wish to be included to submit their e-mail addresses.

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An emergency/alert database can be designed as a passive system to provide electronic alerts, or it can be created to include a range of data that can fulfill a more comprehensive function. The following elements, with search/selection options, are suggestions to be included in a more complex alert/emergency response database.

C. Emergency First Responders by County Database fields to note equine specialties:

1. Trailer accident training
2. Biohazard training and capacities
3. Helicopter rescue training/availability
4. Equine disaster and evacuation certification

D. Inventory of Equine Staging Areas by County

A comprehensive listing of locations by county that can serve as equine staging areas, [with] capacities and contact information for [each] facility. This database needs to include items such as water supply, proximity issues, ingress/egress assessments and containment evaluation.

II. Emergency Equine Evacuation Transport Network

Hopefully, Maryland will never be in need of such a program, but it is always better to be prepared than wishing in hindsight. In 2003, many horses in southern California died because there was no system to ask other horse owners to help with transport. Maryland is certainly not immune from circumstances that might require emergency evacuation of animals from an area. A large chemical spill, a biohazard emergency, or a natural or nuclear disaster might very well require emergency evacuation. Most horse owners are unprepared as well as unequipped (in terms of trailering capacity) to evacuate their horses in a timely fashion. An Emergency Equine Transport Network can be a lifesaver.

While promoting and collecting information for the Maryland Equine Alert Database, suggest that respondents consider volunteering for an Emergency Equine Evacuation Transport Network. A range of information will need to be collected for this function, but it is fairly simple to create and reasonably easy to activate if the proper fields and search options are built into the database. Information can be submitted online.

The design of an emergency/alert system should be reviewed by a disaster preparedness expert and may qualify the database for federal funding. As with any viable database, periodic cleansing and testing is critical. An alert (signal out) test could be performed on the first of each month for the first year and can serve as a promotional tool to solicit additional participants.

Storage of the information/database should

be secure and dichotomized within the parameters of the state system, [with] secure storage and access outside the state system.

Although databases of this type are typically not overly expensive to design and build, data entry and changes can be very time consuming. Information procurement can also be taxing. This type of database, with slight variations, may qualify for Federal Emergency Management Agency funding.

A communication and alert network for Maryland's extended horse community can be a valuable asset and can prove to be invaluable during an emergency or crisis. I hope you will consider making such a tool a reality in 2006.

Marylanders Speak Out

What do you think about the herpes issue?

(Editor's note: Comments have been edited for clarity and length.)

Beware Big Brother

The Maryland state government has given itself the right to enter (trespass upon) any "premise" at any time to inspect for diseases, to test any animal for any disease by any method it deems necessary – which could possibly require the animal to be killed first – and to destroy any animal whom it chooses to destroy rather than allowing the owner to attempt to medically treat and save the animal, etc. The state has also given itself the right to destroy any farm building or any other possibly contaminated article.

Stand in the way of them killing your horses or destroying your property/possessions and you become a criminal, and a victim of an Orwellian police state. Remember the excessively ruthless, barbaric and needless fiasco involving the destruction of livestock – which included animals considered pets, and historic barns, etc. – in the United Kingdom a few years ago? Did you think that can't happen here? Well, think again.

If we don't all work together against this madness, we could be in for some rather unpleasant problems, to say the least. Let's stand up for our freedom, liberty and our four-legged friends, and put an end to these hideously harmful laws before it's too late!

R. D. Davis

Jersey-bound?

I have a very expensive (by my standards – \$20,000) pony at a show barn in New Jersey. My trainer has been taking in a horse from a New Jersey racetrack and I am concerned. We also have a racetrack mom who just foaled, and she is now back at the barn with her foal. Any chance the herpes virus has moved to New Jersey yet? It's only a matter of time.

Why don't people take the time and money to protect against this? I do know there is a vaccine. Just wondering. At least I know my pony has all the shots.

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