

# Quarantine

The recent "Poolesville Case" sparked a lively community debate about federal and state laws, and guidelines and quarantining protocols regarding situations in which horses are suspected of having an infectious contagious disease. The Maryland Horse Council invited the Maryland State Vet, Dr. Phyllis Cassano, and the Deputy Secretary of Agriculture, John Brooks (DVM, large animal) to speak to their membership on the subject. We also wanted to know, in situations in which diagnosis are confirmed, what diseases are reportable, and what actions the State is required to take. MHC and The Equiery worked together to prepare the following questions, which we presented to Dr. Cassano.

## Maryland State Protocols for Quarantining in Cases of Suspected, Infectious & Contagious Equine Diseases

### 1. What are the Federal and State guidelines regarding contagious, infectious equine diseases? What diseases are included in this category?

Dr. Cassano: The mission statement of MDA's Animal Health section is "to identify, control, and prevent those diseases of animals which affect people, reduce productivity, marketability, and profitability of animal industries, threaten survival of animal populations, and/or affect the safety or quality of animal products. The mission is accomplished by surveillance for the presence of disease by inspections, diagnostic laboratory testing, enforcement of animal health regulations, health certification, and epidemiological investigations of reports of disease by veterinarians, animal owners, and others."

Therefore, one of the State Veterinarian's main responsibilities is to prevent contagious, infectious disease in all agricultural animals in Maryland. The guidelines for handling contagious, infectious equine diseases will vary depending on the disease and the circumstances. Animal health professionals will take into consideration a disease's pathogenicity (to what degree is it able to make a horse sick); its incubation period; its ease of spread; its ability to exist in the environment; and its overall threat to the equine population.

Because of differences in pathogenicity, some diseases are of more interest than others to state and federal agencies. Those

of more interest are categorized as "reportable." The MDA Animal Health staff prepared and distributed a list of "reportable" diseases to all veterinarians licensed in the State (see attached list). It is also available on the MDA website, [www.mda.state.md.us](http://www.mda.state.md.us). In addition, to the state list, the federal government has a list of diseases which follows the OIE international guideline. These are mainly diseases believed to be absent from the United States. The only reportable diseases that have set protocols are "program diseases"—those that are in a Federal/State Cooperative Program for control and/or eradication purposes. Equine Infectious Anemia is an example of a State and Federal Cooperative Program disease.

The presence of a reportable disease does not necessarily mean that animals will be quarantined. It simply means that it must be reported to the state veterinarian so that it can be recorded and tracked to determine, in cooperation with private case veterinarian, what if any action should be taken. Whether or not a quarantine is involved will depend on many factors such as pathogenicity, ease of spread, type of setting, i.e. a busy boarding/riding stable vs. a few horses on farm that is fairly isolated, etc.

In the vast majority of cases, quarantine of animals or entire premises is under State authority. If there is concern that the disease may spread or threaten U.S. exports then the federal government can declare a national emergency involving quarantine authority. If

### Reportable Equine Diseases

*Anthrax*

*African Horse Sickness*

*Brucellosis*

*Contagious Equine Metritis*

*Dourine (equine trypanosomiasis)*

*Equine Viral Arteritis*

*Equine Encephalomyelitis*

*Equine Infectious Anemia*

*Glanders*

*Piroplasmosis*

*Potomac Horse Fever\**

*Rabies\**

*Salmonellosis*

*Screw Worms*

*Suspected Foreign Animal Disease*

*Tuberculosis*

*Vesicular Lesions*

*Vesicular Stomatitis*

*West Nile Virus\**

*\*Reportable to Maryland Animal Health Officials, 410-841-5810  
Those without an asterisk are reportable to both federal and state officials.*

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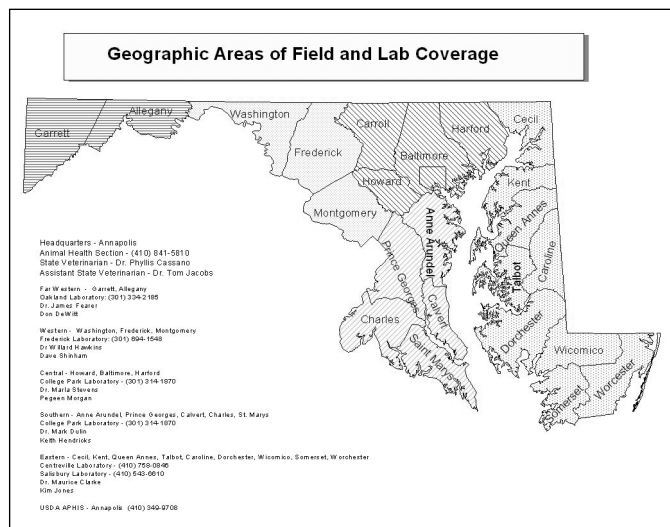
there is potential for a regional emergency, such as the Exotic Newcastle disease in California, the federal government may place a quarantine on a state or a region.

## 2. Is it horse owner's or veterinarian's responsibility to notify MDA? Do they notify the field veterinarian or the state vet? At what point do they notify the State?

*Dr. Cassano:* Our statute says that any person practicing veterinary medicine is responsible for notifying the state veterinarian and/or the U.S. Department of Agriculture's Area Veterinarian in Charge (AVIC) of any reportable disease or any illness that is undiagnosed or unusual enough to warrant further diagnostic

testing. It is important that veterinarians take the lead in this process since their professional judgment can better assess the situation. Notification can be made to the state veterinarian, to any state field veterinarian; to an MDA Animal Health Diagnostic Laboratory; or to the USDA AVIC office. For suspected Foreign Animal Diseases, the veterinarian should notify both state and federal animal health officials as quickly as possible, hopefully

within a few hours of disease suspicion. If it is determined that an investigation is warranted, a specially-trained Foreign



## Poolesville Case Notes by Dr. Amy Polkes, DVM, Dip ACVIM

*March 18:* First horse becomes symptomatic of a neurological disease of unknown origins, was euthanized and sent for necropsy studies to the Frederick Lab.

*March 22-23:* 7 horses from same field are symptomatic with a neurological disease, unknown origins. The clinical signs ranged from acute recumbency to mild rear limb ataxia. None of the horses had bladder paresis (characteristic in an EHV1 outbreak). Because the horses are from the same herd in the same field, it is theorized that a mycotoxin in that field was causing the neurologic symptoms. Two are euthanized, five are sent to Leesburg. Owner closes farm, imposes self quarantine, and State Vet is notified.

EHV1 was considered in differential diagnosis but the initial laboratory testing was not supportive of this diagnosis, because

- The EHV1 titers were uncharacteristically low (for an EHV1 outbreak)
- Virus isolation was negative for the horses tested
- CSF analysis was not supportive (only one horse had xanthochromia—which is characteristic of EHV1)
- The laboratory testing on the first 3 horses that were euthanized were all negative for EHV1

*April 21:* Three more horses, from different parts of the farm, become symptomatic. These horses become known as Group Two. The horses all had different clinical (neurologic) signs ranging again from acute recumbency to mild hind limb ataxia to cranial nerve signs. The focus moved away from a mycotoxin and towards a possible infectious disease. All of these neurologic signs could be consistent with EHV1, but there was still no supportive laboratory evidence. More extensive laboratory testing was done involving Cornell University; National Veterinarian Services Laboratories in Ames, Iowa; Gluck Equine Research Center (University of Kentucky); and University of Pennsylvania, as well as the Maryland State Labs.

Consultations were had with University of Ohio, Gluck, and the Marion duPont Scott Equine Medical Center (VA-MD Regional College of Veterinary Medicine). The focus was on ruling out EHV1.

*By April 30:* Official State quarantined has been issued.

*June 15:* Finally, we received a definitive diagnosis of EHV1 for 2 of the Group Two horses. The rest remain very suspicious but are unconfirmed.

*August:* No symptomatic horses since the last horse on May 18. State lifts quarantine.

*Conclusion:* This case was particularly frustrating and complicated due to lab testing that did not initially support EHV1, as well as conflicting results from different labs that made interpretation of the lab results difficult.

Without knowing the specifics of the laboratory testing, this case may have appeared to be an “obvious” EHV1 outbreak but when examining the details of the case, it has been a very interesting and unusual case outbreak of EHV1.

A presentation of the challenges in this unusual case will be presented to the Maryland Veterinarian Medical Association, and possibly to other organizations in the future.

Animal Disease Diagnostician will be assigned to the case. The Maryland Department of Agriculture has, for purposes of personnel assignments and quick response to any animal health situation, divided the State into five regions. There are staff veterinarians and inspectors assigned to each of our Animal Health Diagnostic Laboratories.

### **3. Are there any county agencies that need to be contacted?**

*Dr. Cassano:* Whether or not a county agency needs to be alerted to an animal health situation will depend on the type of disease. If the disease is zoonotic—one that can be spread from animal to human—the state and county health departments will be notified. The University of Maryland Cooperative Extension personnel may be contacted if their assistance is needed.

### **4. Does the Board of Veterinary Medical Examiners get involved?**

*Dr. Cassano:* Ordinarily, the Board of Veterinary Medical Examiners does not get involved. The board is responsible for licensing veterinarians, veterinary hospitals, or investigating any complaints against veterinarians.

### **5. Who is responsible for quarantining and how does this happen?**

*Dr. Cassano:* In most cases the State takes the lead in issuing quarantines. A quarantine can be issued when it is determined that it would be an appropriate tool in controlling/eradicating a disease. Sometimes a verbal quarantine is in place before a formal written quarantine notice is given to the owner. The quarantine notice will include the disease or suspected disease and the specific restrictions covered by the quarantine. If a veterinarian suspects an infectious or contagious disease he has an obligation to recommend that movement be restricted. The owner, according to our regulations, bears the responsibility of following the instruction of the veterinarian and keeping animals quarantined.

### **6. What are the ramifications of quarantining?**

*Dr. Cassano:* In the vast majority of cases, a quarantine means the restriction of animal movement. The ramification is

that no animal may enter or leave a premise. Animals may need to be separated from others; people movement/traffic may be restricted or modified; certain biosecurity measures may be put in place, i.e. disinfecting vehicles before leaving the premise, etc. The MDA field veterinarians and inspectors work with the private veterinarians and the animal and/or property owner to establish biosecurity protocols.

### **7. How can the community be assured that the feed truck on their farm didn't just leave a quarantined facility?**

*Dr. Cassano:* Biosecurity protocols established in a given situation to contain or eradicate a disease will determine whether or not feed trucks (and other service providers) would be allowed to visit other farms after they have made a delivery and what procedures they may have to follow. The stringency of the protocol is determined by many factors.

### **8. If a farm or animal is quarantined does the State take over testing? What tests are done?**

*Dr. Cassano:* If a quarantine is issued, the State will ordinarily do the testing deemed necessary to satisfy the diagnosis requirements and to determine whether a quarantine is needed or can be lifted.

### **9. At what point will the quarantine be lifted?**

*Dr. Cassano:* When a quarantine is lifted depends on the disease and the incubation period. A quarantine is lifted when it is determined by MDA personnel and the attending veterinarian that the disease is no longer a threat, even if a final diagnosis has not been reached, or when test results show that the disease can be easily controlled and eradicated.

### **10. Who are the field vets? What is the MDA hierarchy of responsibility?**

*Dr. Cassano:* The Maryland Department of Agriculture has, for purposes of personnel assignments and quick response to any animal health situation, divided the State into five regions. There is an Animal Health Diagnostic Laboratory, staff veterinarians, and field inspectors in each region. The field inspectors and veteri-

narians conduct surveillance, inspection, and educational activities in their respective regions. Field inspectors report to Dr. James Fearer, director of the Oakland Animal Health Laboratory and manager of field operations. Laboratory directors and lab staff conduct animal health diagnostic testing. They report to Dr. Thomas Jacobs, assistant state veterinarian and manager of laboratory operations. All report to the state veterinarian, the Assistant Secretary for Marketing, Animal Industries, and Consumer Services, and ultimately the Secretary of Agriculture.

### **11. Since the State of Maryland contributes financially to the Marion duPont Scott Equine Medical Center in Leesburg via The Maryland-Virginia Regional College of Veterinary Medicine, does the Maryland State Vet have any regulatory sway over the hospital?**

*Dr. Cassano:* No.

### **12. What happens if a trace-back for an infectious disease goes to an out-of-state facility?**

*Dr. Cassano:* Any and all states involved will be notified of the situation by the agency doing the trace-backs/trace forwards.

### **13. What communication can the community expect from MDA regarding these kinds of cases in the future?**

*Dr. Cassano:* The MDA always tries to keep all appropriate parties apprised of any disease situation and status. Sometimes, it is essential to protect an owner's privacy to avoid economic loss or other negative affects publicity may have on his or her operation. However, MDA will always try to reach all appropriate parties as the situation demands. We can reach out to the public through direct contact, industry communications, Maryland Veterinary Medical Association, and any other media that may be necessary. Veterinarians involved in the case can relay information to other veterinarians in the area and they in turn would share it with their client. This prevents incorrect information from spreading. ■