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INFORMATION ABOUT EQUINE STRANGLES

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Several licensed stable operators in Maryland have asked the Maryland Horse Industry Board Stable Inspectors about the disease Strangles. As a result, the Animal Health Section of the Maryland Department of Agriculture has provided the following information.

Although not a reportable disease in Maryland, equine strangles is, never-the-less, a serious malady in Equidae. It is an infectious, transmissible disease found worldwide and characterized by inflammation of the upper respiratory tract and, most often, by abscessation of the adjacent lymph nodes. The condition may occur in horses of all ages, although those under five years of age are probably more susceptible and, therefore, more frequently affected by serious forms of the disease.

Strangles is caused by the bacterium *Streptococcus equi*. Though more resistant to heat than other members of the streptococcal group, *Strep. equi* is killed in the environment by drying, sunlight and common disinfectants. The presence of organic material, such as fecal material, reduces the effectiveness of disinfectants. *Strep. equi* is transmitted through the purulent discharges of infected animals. Infection is by inhalation or ingestion, followed by invasion of the upper respiratory and laryngeal mucosa in which enzymes and toxins released by the organisms induce inflammation. The bacteria then spread to the local lymph nodes which cause further inflammation and abscess formation.

After exposure, the incubation period is usually 3-6 days. An infected horse will typically go off feed and develop a high fever (106 F). Inflammation then develops in the throat and upper respiratory linings, which may cause difficulty in swallowing. A thick, purulent discharge will develop. A prominent cough and discharge from the eyes may also be present. Most of the lymph nodes in the throat and upper neck become involved and often abscess to the point of rupturing. The swelling of these lymph nodes may be sufficient to result in serious and often life-threatening respiratory obstruction. This is the clinical feature which gives rise to the name "Strangles" "Bastard Strangles" is characterized by abscessation in other areas of the body, particularly the lymph nodes in the abdomen and less frequently in the thorax. If an outbreak occurs in a naïve

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(over)

population, those affected may approach 100%. The death rate is usually less than 2% and is most often caused by complications such as purpura hemorrhagica which sometimes is a sequela of Strep. equi infections.

Treatment requires complete rest and intensive nursing care. Hot packing the abscesses may speed their maturation so they may be lanced. The use of antibiotics is controversial. Antibiotic use should only be initiated after consultation with your veterinarian. If dosage or duration of the treatment is inadequate, the risk of prolonged disease and complications increases. Under veterinarian supervision, nursing foals should probably receive antibiotic therapy as well as severe, acute cases.

During an outbreak, sound sanitary measures are indicated to prevent spread of infection. Common watering troughs should not be used. Affected animals should be isolated, and their temperatures monitored. Stables and equipment should be cleaned and the contaminated bedding burned or composted and facilities not used for at least 3 months. Mild antiseptic washes can be used to remove crusted discharges about the head. It is important to remember that affected animals can be infectious for more than 4 weeks after onset. Horses frequently continue to shed the bacteria for at least 4 weeks after clinical signs resolve. A chronic, convalescent carrier state can exist in which the organism persists in the guttural pouches.

Because bacteria can be shed for long periods, prevention depends heavily on isolating horses added to a herd or stable for several weeks before mingling. Any suspect animals should be examined and a bacterial culture done on any nasal discharges.

There are now test kits on the market being used to check Strep. equi antibody levels in horses and to confirm suspect infections. Consult with your veterinarian for further information on the use of these diagnostic tools to manage a suspect or potential Strep. equi problem.

In the U.S. three vaccines are currently available, although vaccination does not always prevent infection. However, if an infection does occur in a vaccinated horse, it is usually milder and of shorter duration. Any questions about medical information on Strangles or other equine diseases should be directed to your veterinarian.

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