Presently the gold standard test for Rhodococcus equi includes bacterial culture or PCR and analysis of transtracheal aspirate. This involves passing a small plastic sterile tube down the trachea to the lungs and obtaining a sample. We can also make a tentative diagnosis of Rhodococcus equi pneumonia based on clinical signs and radiographic images or ultrasound images of the chest.

**Diagnosis**

**Early diagnosis before development of clinical signs could reduce losses and decrease treatment related costs.** We recommend every other week visits by the veterinarians to visually inspect the foals as well as collection of blood for fibrinogen measurements. We recommend ultrasound examinations in foals be performed every 2-4 weeks. This will allow us to identify subclinical cases of Rhodococcus equi pneumonia before they are clinically apparent. In addition the owner and farm managers can take daily temperature and respiratory rate recordings to identify affected foals.

**Treatment**

Treatment of choice is to place all affected foals on long-term antibiotic therapy, typically 30-60 days. We can monitor blood work and thoracic images to determine when to stop therapy. There have been reports of antibiotic associated complications.
Rhodococcus equi Pneumonia

such as hyperthermia (markedly elevated body temperature) and mild diarrhea. We highly recommend keeping the foals being treated out of the sun while on the medication.

Prevention

The Rhodococcus equi bacterium is relatively difficult to control. There is no proven vaccination for prevention of the disease. However, we feel that adequate immunization of the mare pre-foaling will help reduce the incidence of viral respiratory pathogens in the foal, thereby reducing the incidence of respiratory compromise leading to damage and opportunistic infection with Rhodococcus equi bacterium.

Good farm management is pivotal to the control of Rhodococcus pneumonia on farms. We recommend foaling all mares in stalls without dirt floors. We also recommend picking the manure out of the stalls as often as possible thereby reducing the foals exposure to concentrated Rhodococcus equi bacterium. Once the foals are several weeks old we recommend moving them to pasture with good grass, rather than dry, dusty paddocks to avoid ingestion or inhalation of the soil, dust, or fecal particles.

Before another mare is placed in the stall, the stall should be stripped and adequately disinfected. Some farms place sprinklers in their pastures to reduce the dry dusty conditions.

Rhodococcus equi infections can be successfully controlled by a management strategy that involves the practices listed above. Conscientiously applied, this will reduce the spread of infection and therefore the costs associated with the disease.

- Periodic ultrasound and radiographic examinations to identify horses prior to clinical disease.
- Every other week fibrinogen determination
- Daily temperature and respiratory rate recording
- Check the foals IgG after 24 hours of birth
- Administer hyperimmune plasma
- Vaccinate mare against respiratory viral pathogens
- Initiate an effective parasite control program

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