Strangles in Horses – A Fact Sheet from Towcester Equine Vets

If you've read the summary article in the equine news section on the Towcester Equine Vets website then you'll already know the top line about this distressing disease. In this fact sheet we'll go into a bit more detail about, what Strangles is, how it spreads, how to spot it, diagnose it, treat it and finally how to help prevent the spread of Strangles.

What is Strangles in horses?
Strangles is caused by bacteria called *Streptococcus equi equi*. It is called 'strangles' because clinical signs can include swelling and abscessation of the lymph nodes around the throat. It is a highly contagious disease that can be very debilitating but is rarely life-threatening. Strangles can affect horses, ponies and donkeys of all ages.

How does Strangles spread?
Strangles can be spread by direct contact with an infected horse or by contact with contaminated clothing or equipment. The bacteria can survive for up to 30 days in water containers during the winter, however it is easily killed by scrubbing and disinfecting equipment/surfaces with a disinfectant such as Virkon.

What are the symptoms of Strangles in horses?
Clinical signs can range from mild to severe and may include the following:

- Fever (38.5C or above)
- Depression
- Reduced appetite
- Cough
- Yellow/white nasal discharge
- Swelling or abscesses under the jaw or around the throat

It can take up to 3 weeks for newly infected horses to show clinical signs. A high temperature is usually the first symptom and horses become infectious 2-3 days after the temperature first begins to rise. Monitoring temperatures twice daily and isolating those horses which present with a high temperature is vital in effectively managing an outbreak.

In some rare cases, Strangles may develop serious complications, which can be life-threatening.

- "Bastard" strangles is where abscesses form in other areas of the body.
- Purpura haemorrhagica presents as a swelling of the abdomen, limbs and sheath with bleeding or bruising of the mucous membranes.

Diagnosing Strangles

1. Diagnosing the disease can be difficult and confusing. There are three main diagnostic tests that can be used:
    - Blood test for serology
    - This looks at the level of antibodies present in the horse's blood, which are produced approximately two weeks following exposure to Strangles
    - There can be several reasons why horses have a positive serology result: if there is a current active infection, if they are a carrier or if they have been exposed to the bacteria within the past 6 months, but not necessarily have shown any clinical signs. A guttural pouch wash is often required to determine which scenario is present
    - A repeat blood test 10-14 days later may be required to look for a rising antibody titre if the results come back inconclusive or if there has been possible exposure within the past 2 weeks

2. Swabs of the nasopharynx or discharge from an abscess for culture and PCR
    - Nasopharyngeal swabs do not always reliably pick up the S. equi bacteria and often give false negative results. Therefore 3 repeat swabs at 1 week-intervals are required to confirm a negative result, although this may still be questionable

3. Guttural pouch wash by endoscopy for culture and PCR
    - This is the most reliable and recommended method of testing, as the S. equi bacteria reside within the guttural pouches in infected and carrier horses
    - Horses are sedated to allow a small camera to pass up the nostril to the nasopharynx and into each guttural pouch. Sterile saline is flushed into each guttural pouch and then collected and sent away for analysis. Antibiotics may be administered directly into the guttural pouches if an infection is suspected

Understanding Strangles' *Carrier Status*
'Carrier' horses are those that have recovered from strangles and no longer show any clinical signs, but still harbour *S. equi* bacteria that cause Strangles within their guttural pouches and are able to spread the infection to other horses. The only way to detect and treat a carrier is by guttural pouch endoscopy. Chondroids are often present within the guttural pouches, which are dried balls of pus. These are removed and antibiotics are often administered to kill any remaining bacteria.

Treatment of Strangles
Treatment protocols will vary from case to case and should be discussed with your equine vet. Strangles is often left to run its course with supportive care, such as anti-inflammatories if necessary. In some cases, antibiotics are administered directly into the guttural pouches.

How to prevent Strangles
You can reduce the risk of your horse contracting Strangles and if it's known to exist reduce the chance of spreading it by following these simple biosecurity measures.

- Avoid sharing tack and equipment between horses, especially if disease status is unknown
- Clean feed bowls and water buckets daily
- Regularly clean equipment, such as grooming kits and tack
- Disinfect stables between horses
- Monitor horses' temperatures daily
- Prevent contact with other horses off the yard, such as at competitions. Take your own equipment and do not allow horses to share feed and water buckets. Disinfect equipment once returning home
- Quarantine new arrivals for 3 weeks, ideally on a separate yard. Use separate equipment, disinfect boots and wash hands before dealing with the other resident horses
- Some yards require a Strangles blood test before arrival, however it must be noted that this alone does not always detect carriers

What to do if you suspect strangles
- Stop any movement of horses on or off the yard
- Isolate any horses that are showing signs of Strangles, ideally on a separate yard or separate field with its own water source and no nose-to-nose contact with any other horses
- Divide all horses into three traffic light groups:
    - Red group - Horses that have tested positive or are showing any clinical signs of Strangles
    - Amber group - Horses that may have been in direct or indirect contact with any horses from the red group
    - Green group - Horses that have definitely not had any contact with horses from the red or amber groups

- All horses in the green and amber groups should have their temperatures taken twice daily and monitored closely for any other clinical signs. If a high temperature or clinical signs are detected, the horse should be moved to the red group immediately
- If it is not possible to have separate staff for each group then they should attend to the healthy horses first and infected horses last (i.e., green then amber then red)
- Call Towcester Equine Vets on 01327 811007 for advice on management of the disease and diagnostic testing

- Contact owners, farriers, trainers, neighbouring yards and any other people who have been or will be coming to the yard. Inform them of the situation so they can take their own measures to help prevent the spread of the disease

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