

Equine Strangles

What is strangles?

Strangles is a highly contagious disease of equids including horses, donkeys and ponies. It is caused by the bacteria *Streptococcus equi*. Common clinical signs include lethargy, reduced feed intake, slight cough, nasal discharge and a fever. They may adopt a lower head carriage if they have swollen lymph nodes or abscesses, these usually develop around the throat but can develop at the base of the ear. Not all strangles cases will develop abscesses.

What should I do if I suspect strangles?

The first thing to do is to isolate any horse with signs of strangles from other horses. Supportive care of the animal includes:

- Providing soft, palatable feed
- Monitoring the horse's body temperature – anything over 38.5 is considered pyrexia (fever)
- Contacting your vet – we can advise on further management of the horse's illness including diagnostic testing, treatment options and quarantine of the yard.
- Apply hot compresses to abscesses to promote rupture and drainage
- Use separate cleaning equipment for every horse you suspect of having strangles, and always visit that horse last.

Complications, although very rare, can happen. They may present as swelling of the legs and belly, hives or muscle problems. If you suspect any of these conditions, please notify your vet.

Tests available

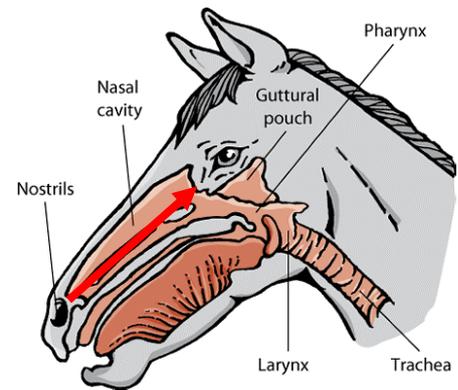
1. Blood test
 - a. What are we testing for?
 - i. ANTIGENS A +C
 - ii. A negative result (≤ 0.2) for both antigens indicates the animal is unlikely to be a carrier and or have been exposed to *S.equi* 2 weeks prior to the sample being taken.
 - iii. A borderline result (0.3 – 0.4) to either antigen indicates the animal may have recently been exposed to *S.equi*. We recommend a repeat blood sample 10-21 days later to look for a rising titre.
 - iv. A positive result (≥ 0.5) to either antigen indicates further testing is recommended.
 - b. Low-risk screening (moving yards bloods)
 - i. Negative test - negative test result will be accurate (approximately 99% of negative tests will be correct).
 - ii. Positive test - results are less reliable although still reasonably accurate. However, a positive blood test in a low-risk case still merits a follow up with guttural pouch examination. This will help understand whether the positive test is because of active infection, chronic infection or is a false positive.

c. High-risk investigation

- i. Blood testing may also be used in circumstances where there is a higher probability of exposure to *S. equi*. However, exposure may not always show a positive result (an increase in antigen titres can take days to weeks) and therefore follow up testing (guttural pouch wash) is warranted in these circumstances. A negative test result in a high-risk case is reasonably accurate although will give false reassurance in about 1 in 16 tests

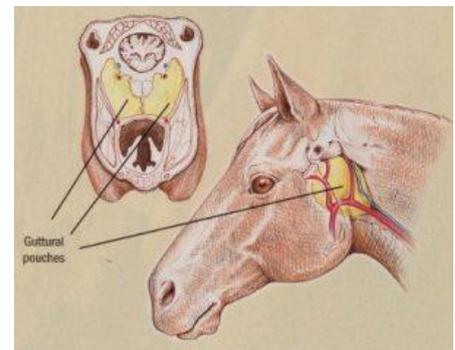
2. Nasopharyngeal Swab

- a. A relatively cheap and easy technique. This involves putting a large swab into the lower cavity of the nostril to nasopharynx (level of the eye). However, persistent infection is found within the guttural pouches, and may frequently not exist in the nasopharynx, giving an inaccurate result. On average, 30-45% of nasopharyngeal swabs taken from known carriers are positive on culture (Newton et al, 1997, 2000). Even taking repeated swabs does not necessarily compensate for this insensitivity as the bacterium may simply not be present in the nasopharynx.



3. Guttural Pouch Wash

- a. The most accurate way to diagnose strangles. This involves putting a small camera into the nose to the guttural pouches. The guttural pouch is where the *S. equi* bacteria likes to reside, this is why many abscess will appear at the back of the throat. The camera allows us to visualise whether there is any pus or chondroids (hard calcified pus) sat within them. If the guttural pouches are visibly clear of infection, we will lavage them with sterile saline and take a sample for bacterial culture and DNA analysis. Only with both of these results can we be <95% accurate that we are dealing with strangles.



Treatment

- Antibiotics
 - Antimicrobial therapy is controversial. Starting antibiotics when unsure about abscess formation, can prolong the course of disease by delaying maturation of abscesses. Antibiotic therapy is indicated in cases with dyspnoea (unable to breath), dysphagia (unable to eat), prolonged high fever, and severe lethargy/anorexia. The disadvantage of early antimicrobial treatment is failure to mount a protective immune response, rendering horses susceptible to infection after cessation of therapy.

- Guttural Pouch washout
 - If a high positive result is yielded from a guttural pouch wash, or there is evidence of pus within the guttural pouches, we would opt to flush the guttural pouches with Penicillin. Administration of penicillin during the early stage of infection (≤ 24 hr of onset of fever) will usually arrest abscess formation. Untreated guttural pouch infections can result in persistent guttural pouch empyema with or without chondroid formation.
- Abscesses
 - If still intact we would cut into the abscesses to allow drainage and then clean that daily with either dilute hibi-scrub/dilute iodine. Similarly with burst abscesses, keeping them draining and clean will speed healing and recovery.
- Extras
 - Pain relief – will always be given in cases of strangles. NSAIDS are fantastic for reducing fevers, therefore keeping your horse eating, and removing pain.
 - In rare and severe cases, abscesses and lymph nodes may become so large that they press against the trachea (wind pipe), and impair breathing and so a tracheostomy tube may be needed.