



Amigoanimalclinicgj.com  
(970) 245-0210

### Controlling a strangles outbreak:

#### Facts:

- **Strangles is a highly contagious bacterial (Streptococcus Equi) disease that spreads from a contaminated horse to other horses.**
- **It enters the body through the nostrils and the mouth and colonizes those areas as well as the pharyngeal and tubal tonsils. From there the lymph nodes pick it up leading to infection and abscesses forming in the lymph nodes under the jaw and the throat. In less common cases infection can spread to other lymph nodes of the body or to other organs and cause severe illness (bastard strangles).**
- **Once a horse is exposed it takes 3-14 days before signs like the fever, depression, lymph node swelling, snotty nose, anorexia, etc. appear.**
- **Obvious lymph node swelling and abscessation is evident approximately 1-2 weeks after infection (not all horses will develop these).**
- **Horses become infectious to others 2-3 days after the fever hits and most will shed the bacteria for 2-3 weeks after recovery.**
- **75% of horses recovering from the disease will develop solid protective immunity that will last for up to 5 years.**
- **31% of horses can become long term carriers (years) after they look normal. Meaning they could potentially start another outbreak.**
- **10% of horses may become lifetime carriers most commonly harboring the infection in the guttural pouches.**
- **Most horses will recover over a period of 2-3 weeks with supportive care alone**
- **20% of infected horses may develop complications which may require more extensive treatment. These include guttural pouch infections, abscesses in other**

parts of the body, severe throat swelling causing difficulty breathing or swallowing and bastard strangles.

## What should we do during an outbreak?

**In an ideal situation you should do all of the following. If you cannot meet ideal do as much as you can, adhering to the principals outlined below as closely as possible.**

### A. Prevent spread of disease:

1. **Quarantine!! Stop movement in and out of the farm, you risk infecting new comers now and you risk exporting the disease to other farms.**
2. **Establish 3 areas on the property:** *This limits the spread from horse to horse. Ideally a 200-foot separation between areas. A fence line will not stop the spread. Nose to nose contact and common troughs or feeders are likely modes of transmission.*
  - a. Infected/Sick pen.
  - b. Exposed healthy horses/ no signs of illness noted or fever but have been in with a sick horse.
  - c. Non exposed healthy horses
3. **Limit spreading the bacteria by people and equipment.**
  - a. *People can spread the bacteria on equipment, boots, tack, hay forks, muck forks, jackets, hands, hoses etc. Equipment used for an infected horse should ONLY be used on that horse. The stable facilities, vehicles and equipment that have come into contact with infected horses must be cleaned and disinfected (e.g. bleach).*
  - b. *Handle sick horses last.*
4. **Sanitize: (Facts and recommendations)**
  - a. *S. Equi shielded in pus can live longer than in clear nasal discharge.*
  - b. *In wintertime, pus contaminated discharge that freezes can persist to infect others when the ground thaws.*
  - c. *S. Equi lives at least three days in the soil, seven days on a fence post, and 30-40 days in a water trough.*
  - d. *Some infected and recovered horses continue to shed S. Equi past 30 days. They might clear the infection on their own in time, but it is possible for a recovered horse to shed for weeks, months, or years.*
  - e. *Contaminated pastures should be emptied for 1 month.*
  - f. *Water tanks should be cleaned and disinfected daily during an outbreak.*
  - g. *Clean any surface that can be cleaned. Gates, rails, posts, feeders, stall walls, etc. Clean or spray with a 1:30mix bleach:water daily.*
  - h. *Use coveralls, disposable gloves, and muck boots that can be cleaned or disposed of daily when handling sick horses.*
  - i. *Stalls should be stripped, the ground bleached and allowed to dry thoroughly.*
  - j. *Feces should be composted.*

### B. Monitoring:

- i. **Temp ALL horses twice daily.** *Any horse that has a temperature above 100.5-101.0. Should be placed in the sick pen. It is known that a horse developing strangles will develop a fever 2 days prior to beginning shedding the bacterial infection.*
- ii. **Horses with any of the following go into the infected/sick pen:**
  1. *swollen lymph nodes*
  2. *snotty nose*

3. fever
4. cough / or raspy breathing
5. depression
6. not eating
7. trouble swallowing
8. acting sick in general

## C. Treatment

**Should be directed by a Veterinarian in all cases.**

### i. Supportive care

*(Most cases will recover over a period of 2-3 weeks with supportive care alone –no antibiotic)*

1. Rest, warm stable out of the snow wind and rain, feed adjustments as needed, stress reduction by isolation from others and easy access to fresh food and clean water.
2. Anti-inflammatories like Phenylbutazone (bute), or Banamine. Help reduce fever and inflammation and in a lot of cases will get them eating and feeling significantly better.
3. Lancing greatly enlarged and ripened lymph nodes (veterinarians only)
4. Treating lymph node abscesses twice daily.
5. Clean all snot and abscess discharge twice daily. Keeps them comfortable makes them feel pretty and reduces contamination of things in their environment.

### ii. Antibiotics

#### 1. Which one?

- a. The antibiotic of choice is 3-5 days of Penicillin G. Procaine: for a 1000 pound horse it would require 30cc in the muscle every 12 hours.
- b. Sulfa antibiotics like SMZ-TMP or Uniprim or Tucoprim.—decent second choices
- c. A cephalosporin antibiotic like Excede --a decent second choice but considered not as good as penicillin
  - i. Penicillin is a large volume injection every 12 hours for up to 5 days.
  - ii. SMZ-TMP is oral every 12 hours.
  - iii. Uniprim or Tucoprim are oral every 24 hours.
  - iv. Excede is injectable one injection every 4 days.

#### 2. When to give an antibiotic?

*There are certain aspects of Strangles where antibiotic use might be considered controversial. However, there are symptoms of the disease where antibiotics are absolutely indicated. Your veterinarian should make this choice for you. Articles are available that discuss this at length. Our experience and research have led us to the following general recommendations.*

- a. Horses with a fever that you know have been exposed to an infected horse?
  - i. Not usually. It is thought this may delay or block them from developing full immunity to the disease, maybe allowing a worsened or prolonged case in the long run.
- b. For lymph node enlargement?

- i. *Not usually. Most think it is best to apply warm moist compresses or hot packs to get that lymph node to soften and rupture or be lanced.*
- c. For draining ruptured lymph nodes?
  - i. *Maybe. I believe it is best to encourage full drainage by squeezing it out and flushing twice daily with betadine solution in water (mixed to a dark tea colored solution). Extensive cases with large abscesses with lots of swelling around the abscessed pocket I would start on an antibiotic.*
- d. Horses with snotty noses?
  - i. *Not usually unless it goes on for an extended period of time (1-2 weeks) or seems to be worsening continuously.*
  - ii. *Other structures in the head may be infected like the guttural pouches and sinuses. This could be why the snot won't go away. These need antibiotics and or flushes.*
- e. Horses with coughs?
  - i. *Depends on the severity*
    - 1. *severe coughs-- yes especially if other signs are present*
    - 2. *minor coughs in an otherwise doing well horse -- no.*
- f. Horses with complications?
  - i. Horses that are depressed and not eating?
    - 1. *Try taking their temperature first. If it is elevated, try bute or banamine first to see if that will make them feel better. If that doesn't work start them on an antibiotic.*
  - ii. Horses that look like they are having trouble breathing or that have a high respiratory rate or if you can hear wheezing or increased noise from the throat latch area?
    - 1. *These will need an antibiotic.*
  - iii. Horses with other body parts that appear affected like swollen eyes, or joints or limbs or chest area or belly area.
    - 1. *These will need an antibiotic.*
- g. Horses with special considerations?
 

*These need to be watched more closely and may need antibiotic intervention at an early stage. These should be discussed with your veterinarian as soon as an outbreak occurs.*

  - i. Foals
  - ii. Pregnant mares
  - iii. Immune compromised horses
    - 1. Cushings horses.

2. Horses recovering from injury or surgery or another illness.
3. Old horses.

D. Veterinary Testing:

- a. Testing should be performed to confirm the diagnosis in all cases.
  - i. PCR on nasal swabs, flushes or snot.
  - ii. Culture and sensitivity on snot or on puss.
  - iii. Basic bloodwork may be indicated to assess overall health and organ function in prolonged or severely affected cases.
- b. Follow up testing may be necessary to confirm that the horse is actually clear of the disease.
  - i. PCR on nasal swabs or flushes (up to 3).
  - ii. Guttural pouch testing.
  - iii. iElisa blood test to screen horses that were exposed but that did not develop the disease. If it is negative, then they have not been truly exposed. If positive they may be carriers and further testing might be indicated.
  - iv. Endoscopy of the guttural pouches to look for chronically infected horses or to treat infections that have settled there.

E. What about vaccines?

- i. This is a complicated question and is a decision best left to your veterinarian.
  1. Sick horses—definitely no
  2. Horses recovering from a recent infection—no
  3. Horses that were exposed and or infected that have developed a strong immune response to strangles – no.  
But you can't know this unless your veterinarian tests them (SeM Elisa on blood) (may develop purpura). In valuable horses this is the method of choice.
  4. Horses known to have been exposed to strangles in the last year should not be vaccinated (may develop purpura)
  5. During an outbreak, only horses with no known direct contact with active cases should be vaccinated (an intranasal would be best).
  6. Vaccines should only ever be given to healthy horses that meet the above guidelines.

F. When should the quarantine be lifted?

- i. Ideally
  1. After they have had 3 negative PCR tests 1 week apart.
  2. This is the only means by which you can ensure horses will not be shedding the bacteria.
- ii. Practically
  1. 30 days after the last horse exhibited any of the signs listed above.  
***and***
  2. After you have done all that is possible to decontaminate your place.

