



Strangles in horses

Strangles, caused by the bacteria *Streptococcus equi* subsp. *equi*, is one of the most important endemic horse diseases. It is a **notifiable disease** in NSW. Strangles is more common in young horses, but horses of any age may be affected. Outbreaks may occur when large numbers of horses are in close contact.

Strangles affects the upper respiratory system and lymph nodes of the head. It rapidly spreads from horse to horse through coughing, or by eating feed or drinking water contaminated with infective discharges from a sick horse.

Contaminated grooming utensils, rugs, feed bins, or humans (hands, clothes etc) can also spread the infection.

Within 3 to 8 days of becoming infected, the horse will become depressed and develop a fever (39.5 to 40.5 °C). The throat becomes extremely inflamed so that swallowing food or water becomes very painful or impossible. The lymph nodes of the head (particularly in the throat area) become swollen, very painful and may eventually burst and discharge thick creamy yellow pus. This swelling can make breathing difficult. There is often a watery to thick nasal discharge. The horse may develop a cough.

Clinical signs may persist for days to months. In most cases, once affected lymph nodes have abscessed and drained, recovery is uneventful. Abscesses typically rupture and drain within 2 weeks. Affected horses remain infectious for at least 4 weeks after clinical signs have resolved. Some horses may spread the disease for up to eight months after infection, even though they appear healthy.

Occasionally the infection may spread to other parts of the body. This is known as "bastard strangles". This form is difficult and sometimes impossible to cure.



Notice the swollen lymph nodes in the throat area of this horse with Strangles.

Photo from O.L.I.V.E.R. Faculty of Veterinary Science, University of Sydney.

Diagnosis

A veterinarian will diagnose strangles based on clinical signs with confirmation by sending swabs, from the nose, purulent discharges, and samples collected from abscesses that have not yet discharged, to a veterinary laboratory for bacterial culture. Isolation of the bacteria *Streptococcus equi* subsp. *equi* will confirm strangles.

Treatment

Veterinary treatment should be sought immediately to control the infection, alleviate symptoms and prevent secondary complications. Nursing care is important.

Affected horses should be isolated for 6 to 8 weeks following the onset of clinical signs to prevent spread to other horses.

Strict personal hygiene is necessary for those handling horses. For example, handlers of infected horses should not, if at all possible, be in contact with uninfected horses. Scrupulous hand and boot washing and the use of disposable over-clothing are recommended. Disinfection of food and grooming materials and reusable veterinary equipment is imperative.

Prevention

Horses kept in isolation from other horses are not at risk. Horses that go to studs, shows or camps, or those on agistment with other horses are at risk and a regular vaccination program for strangles is recommended. Vaccination cannot provide 100% protection but it will reduce the incidence and severity of disease.

Newly introduced horses should be isolated for 2-3 weeks and checked regularly (eg. daily temperature checking) to ensure that they are not incubating infection before mixing with other horses.

Vaccination

Strangles vaccine can be given alone or combined with tetanus vaccine as a bivalent (2 in 1) vaccine.

In previously vaccinated mares a booster 2 to 6 weeks before foaling will ensure protection to her foal via the milk. This protection will last for approximately 12 weeks.

Foals are then started on their vaccination program at 12 weeks of age, 3 doses 2 weeks apart.

Annual boosters are necessary to maintain adequate levels of immunity. Six monthly boosters are recommended to provide increased protection in high risk situations.

Swelling at the site of injection and some mild systemic signs (e.g. depression and inappetence) may occur following vaccination.

Why is strangles notifiable?

Strangles is a notifiable disease so that exports and international horse movements can take place.

Many countries to which we export horses require certification that the property of origin has been free from strangles for at least 3 months (some require certification of freedom from disease for up to 2 years) prior to export.

In NSW it is a legal requirement to report any case of strangles to an inspector under the Stock Diseases Act. Inspectors include your district veterinarian, RLPB ranger, and NSW DPI veterinarians. Reports may also be made directly to the Equine Health Co-ordinator NSW Department of Primary Industries by mail, fax, phone or email:

Sarah Robson
Equine Health Coordinator
NSW Department of Primary Industries
Wagga Wagga Agricultural Institute
PMB Pine Gully Road
Wagga Wagga NSW 2650

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Email: sarah.robson@dpi.nsw.gov.au

Notification may be made by horse owners, veterinarians or veterinary pathologists

Details required include the date of disease confirmation, horse identification, owner's name and address and the address of the property where the horse is located.

Information on treatment and number of horses at risk of infection is useful.

How is the information used?

All information is handled confidentially and is only used for export certification purposes. No government regulatory action (such as property quarantine) is applicable to strangles however owners are encouraged to discuss management precautions to prevent spread of infection with their veterinarian.

This information sheet was prepared by Sarah Robson, NSW DPI April 2007.
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