



# UNDERSTANDING STRANGLES

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## Update on current situation

Benridge

Shiple Lane





One of the recent cases – seen here 3 days after diagnosis!



## Strangles - Overview

- The Disease
- Diagnostics
- Management
- Vaccination



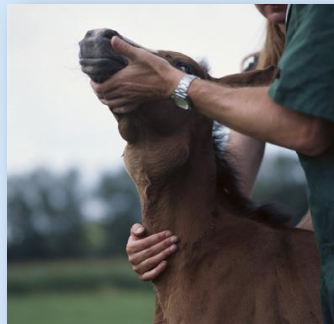
## Strangles – The Disease

- A highly contagious disease
- Ranked amongst the three most significant respiratory infections in the world
- The most commonly diagnosed bacterial disease in horses
  - UK >1400 diagnosed cases 2012 in >350 outbreaks
  - In Sweden it is notifiable and 4 times more cases than equine flu



## Strangles – The Disease

- Caused by the bacterium, *Streptococcus equi*
- Unique to the horse family
- Seen in horses of all ages although young horses often show more signs (no immunity)



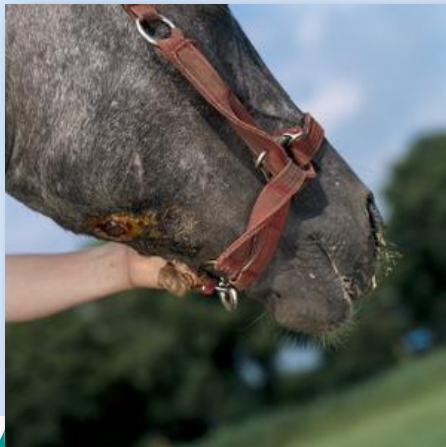
## Strangles – Typical Signs

- Dull/depression
- Fever (over 38.5 degrees C)
- Nasal discharge
- Swollen lymph nodes
- Lack of appetite



## Strangles – Other Signs

- Cough
- Abscessed lymph nodes



## Strangles – The Disease

- Signs usually develop 5-7 days after exposure (rarely up to 21 days)
- Abscess may form 1-2 weeks later and last 3-4 weeks
- May spread to the guttural pouch and these horses can become carriers (10% of all cases).



## Strangles – Different Forms

- **Bastard Strangles**
  - Remote abscess in body
  - 1% of infected horses
  - Signs depend where abscess are;
    - Abdomen → colic and weight loss
    - Chest → breathing difficulties / pneumonia



## Strangles – Rare Complication

- Purpura haemorrhagica
  - Damage to blood vessels
  - Swollen limbs, sloughing of skin
  - Serious but rare disease



## Strangles - Carriers

- **Carriers**
  - Around 10% of horses become carriers
  - Usually bacteria remain in the guttural pouch
  - No external signs
  - Intermittently shed bacteria
  - Source of infection to others
  - Endoscopy and guttural pouch wash to diagnose





## Strangles – The Disease



- Spread by
  - **Direct contact:** horse-to-horse (nose to nose) contact including carriers
  - **Indirect contact:** nasal (or abscess) discharge in water, tack, clothing, hands, stable equipment and even stable cats and dogs!
  - NOT aerosol through the air



# Strangles – The Disease

- Survival in environment
  - 2 days in dry sites
  - Up to 9 days in wet sites
  - Even longer in wet sites in colder weather



## Diagnostics





## What diagnostics are available?

- Blood Test – serology
- Nasopharyngeal swabs
- Guttural Pouch Lavage
- Swabs from abscesses



## Blood test (serology ELISA)

- Blood test measures the horses immune response (antibodies) to strangles. NOT testing for bacteria itself.
- Highlights recent exposure to strangles and can help identify carriers
- This is generally used as an initial screening test prior to other diagnostics if required



## Blood test - limitations

- Takes 10-14 days for horses to mount immune response after exposure to strangles
  - May need to repeat sample
- Cannot determine between vaccination and infection
- Difficult to determine if horse is a carrier or recently infected and recovered



## Nasopharyngeal swabs

- Large swab on a wire inserted up the nose to the back of the throat
- Useful in cases with nasal discharge and testing for carriers
- Test for Strep equi bacteria with PCR and culture
- 1 positive result = positive
- 3 swabs taken at weekly intervals to declare a horse negative



# Guttural pouch lavage

- Gold standard for diagnosis and identifying carriers
- Endoscope passed up the nose into the guttural pouch
- Saline flushed into and out of pouch and sent to lab for culture and PCR
- Diagnosis can be made on 1 lavage



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## Management



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## Strangles - Treatment

- Supportive care
- Encourage horses to eat from the floor if possible
- Anti-inflammatory therapy
  
- Hot compresses
- Treatment of abscesses
- Antibiotics usually not appropriate



## Strangles Treatment- Carriers

- Scope both guttural pouches
- Flush pouches and treat with antibiotics directly into pouch
  
- Check infection clear after treatment (repeat endoscopy 1-2weeks)



## Strangles - Management

- Disease prevention
- Disease control in an outbreak



## Strangles – Biosecurity for Prevention

- Quarantine of new arrivals  
(min 2 weeks, ideally 4 weeks)
- Blood Test all new arrivals
  - 2 tests 2 weeks apart
- Individual equipment for horse
- Good stable hygiene



a  
p

## Strangles – Biosecurity for Prevention

- Care at competitions
  - Reduce contact between horses
  - Handle only your own horse
  - Use separate equipment
  - Take your own feed and hay and water



## Strangles – Biosecurity for Control

- Often the gold standard is impractical
- Adopt as many measures as possible to reduce level of strangles challenge
- Discuss protocol with your vet before an outbreak occurs
  - Yard Master – biosecurity program is available



## Managing a strangles outbreak

- On suspicion of an outbreak
  - Isolate infected horse/s
  - Restrict yard movements
  - Vet to perform diagnostics



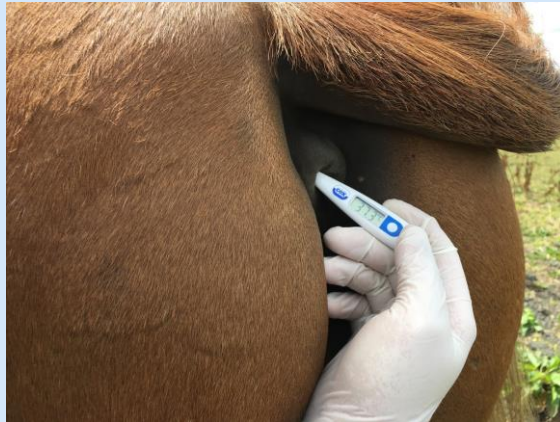
## Managing a strangles outbreak

- **Strangles confirmed**
  - Separate horses into groups
    - **Red** infected
    - **Amber** in contact with infected horses
    - **Green** no contact with infected horses and no signs
  - Monitor temperature of all horses twice daily
  - Care with biosecurity between groups
  - Horses should only be moved from yard when confirmed negative by diagnostics



## Managing a strangles outbreak

- **Monitoring temperature**



## Managing a strangles outbreak

- **Successful quarantine**
  - Suitable location (10-25 m from other horses)
  - Ideally separate personnel only manage the quarantined horses
  - Barrier clothing: gloves, overalls, wellies and hats
  - Appropriate hygiene and disinfection (virkon or trigene)
- **Keep yard closed until advised otherwise**
  - No horses to leave yard





## Use of vaccination

- The vaccine can be used alongside good biosecurity and management measures
- If vaccinating, all horses on a yard should be vaccinated
- However **cannot** distinguish between vaccinated and infected horses on blood samples



## Vaccination

- Strep E vaccine is administered into the upper lip
- Regular boosters required (3-6 months)
- (New vaccine in development)



## Summary

- Strangles is common, contagious but controllable
- Prevention is best achieved through
  - good yard management
  - sensible precautions
- Prompt response to an outbreak with good communication will lead to least loss



## Yard Master

- An app designed by MSD, to help highlight high and low risk areas of yard biosecurity
- Free service we provide to yard owners
- We ask a series of questions which help to generate recommendations to improve biosecurity on yards, decreasing the risk of disease outbreaks
- A report will be provided to the yard owner for reference



**KBHH YARD MASTER**  
PROTECTING YOUR YARD AGAINST DISEASE

**1** YARDS are busy places with high levels of horse movement in/out the premises.

**2** This carries a **HIGH RISK** of disease transmission and the potential for disease outbreaks.

**3** OUTBREAKS can lead to health and welfare concerns for all horses, disruption of activity and yard closures.

Use the KBHH Yard Master to assess the current yard situation. Identify any risks. Adopt simple day to day measures to reduce risks.

**DON'T WAIT FOR AN OUTBREAK. ACT TODAY AND BE PART OF IT.**

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## Useful links:

- <https://www.redwings.org.uk/sites/default/files/RedwingsStranglesInformationPack.pdf>
- <http://www.equine-strangles.co.uk/>
- <http://www.bhs.org.uk/horse-health-and-sickness/strangles>

## Thank you

- MSD
- Michelle Macaulay
- Pegasus Centre



Any Questions?

[www.equine-strangles.co.uk](http://www.equine-strangles.co.uk)

