

Frequently Asked Questions about *Streptococcus Equi* Subsp *Zooepidemicus*

What is *Strep. Zoo*?

Strep. zoo is a bacteria that is commonly found in horses, cattle, and pigs and rarely causes disease in these animals. When it affects dogs, it is highly contagious and cause severe disease. It is a relatively new pathogen present in animal shelters and there are still many things we do not know about this bacteria.

How is it transmitted?

Strep. zoo is transmitted by direct dog-to-dog contact and contact with contaminated fomites (shoes, bowls, etc.). It can also be spread during the sanitation process and survives in wet environments. There are currently no studies to tell us how long *Strep. zoo* survives in the environment or on fomites. Our Rescue disinfectant products are effective at killing the bacteria at specific concentrations and contact times.

How is it treated?

Because it is a bacteria it can be treated with antibiotics. However, it is resistant to doxycycline, which is the common antibiotic we use to treat other respiratory diseases in the shelter. It is treated by penicillin, amoxicillin, cephalexin, and cefovecin (Convenia). Dogs need to be treated for 7 days before they can be released.

What are clinical signs of *Strep. zoo*?

The initial signs are similar to other respiratory or 'kennel cough' disease we see commonly in the shelter such as coughing, sneezing, and nasal discharge. Other signs such as depression or lethargy and vomiting may also be present. Most cases with *Strep. zoo* rapidly decline with severe clinical signs and can pass away within 24-48 hours. Hemorrhage (bleeding) from the mouth and nose are common signs of severe disease in patients.

How is it diagnosed?

Swabs can be collected from the nose or oral cavity and sent to the lab for PCR or bacterial culture to diagnose *Strep. zoo*.

How can we kill it in the environment?

Strep. zoo is killed by Rescue products at a 1:16 dilution ratio with 5-minute contact time or 1:32 dilution ratio with 10 minute contact time. This is consistent with the sanitation protocols we have in place as SDHS. At this time, we do not have studies to tell us how long the bacteria can survive in the environment. However, wet environments favor

survival. Making sure organic material is removed before cleaning an area, allowing for appropriate contact time with the Rescue product, and allowing kennels to fully dry can help make sure the pathogen is killed in the environment.

Are there vaccines that prevent illness?

No, there are no vaccines for *Strep. zoo* available at this time.

Are my animals at home at risk?

It is unlikely you will bring it home to your pets, but steps can be taken to reduce the risk. Since there is no vaccine to prevent disease, the best way to protect your animals is to take measures to not take it home on your clothes and shoes. If you are working in the area with potential exposure, wear PPE to protect your clothing. Consider changing clothes and shoes and washing your hands before heading home or before interacting with your animals. Rescue is effective at killing the bacteria so disinfecting your shoes with Rescue may also help prevent spread to your home.

Can *Strep zoo* affect cats?

No, *Strep zoo* does not commonly affect cats. The only reports are cats with severe immunosuppression from other underlying diseases.

Can *Strep. zoo* cause disease in humans? Is it zoonotic?

Human infections with *Strep. zoo* is very rare and associated with other underlying diseases or immunosuppression. Most human cases are traced back to consumption of unpasteurized milk or contact with horses. Only one case has been documented of a human becoming ill after contact with a sick dog. Personal protective equipment (PPE) including shoe covers, gowns, masks, and gloves should be worn to reduce the risk of spread to humans and other dogs. If you have concerns or feel like you are at increased risk, please talk to your supervisor or EE to figure out safe ways to work.

Is this related to “Strep Throat” that humans get?

Strep throat in humans is caused by a different streptococcus bacteria called *Streptococcus pyogenes*. It is not related to *Strep. zoo* we see in dogs.