Rabbits

PASTEURELLOSIS
Pasteurellosis is caused by infection with the bacteria in the genus, Pasteurella. The lab animal reservoir for pasteurellosis is cats, dogs, rabbits, guinea pigs, and pigs. Infected dogs and cats rarely display signs of infection. However, in rabbits signs may include respiratory illness, nasal discharge, ear infections, abscesses, and genital infections. A large percentage of rabbits (30%-90%) in conventional colonies may be carriers although infection is very rare in rabbits bred for research. This disease is transmitted to humans through bite wounds or rarely through the air (aerosol transmission).

Of significant importance, Pasteurella spp. is commonly isolated from the site of dog and cat bites. Reported signs in humans include redness and painful swelling at the site of the bite as well as enlarged lymph nodes. These signs usually appear 24 hours after the bite and may be treated with antibiotics. All dog or cat bite wounds should be evaluated by medical personnel.

Additional information regarding Pasteurellosis can be found at: http://www.vetmed.lsu.edu/animal_bites.htm

Plague (Yersinia pestis)
Plague is caused by a bacterium called Yersinia pestis that can cause disease in rats, rabbits, and cats. While antibiotics have decreased the incidence of plague in society, if left untreated the disease can cause severe illness and potentially death. Plague has been found in wild rodents and rabbits in the western United States.

Plague is transmitted primarily through bites of fleas infected with the bacterium. Fleas found on animals can bite the animal or human handling the animal and simultaneously transfer the bacterium into the blood stream. People typically show symptoms 2-6 days after receiving a bite from an infected flea. The most common form of disease is called bubonic plague, and usually presents as a fever with chills, and enlarged, painful lymph nodes. The plague can also be transmitted directly from animal to person by breathing in air droplets contaminated with Yersinia pestis. Although this route of transmission is less common it results in a more severe form of the disease. People that contract this form of the disease, called pneumonic plague, develop life threatening symptoms extremely quickly. Clinical signs are similar to bubonic plague but also include labored and increased breathing with a cough that becomes progressive with blood stained sputum.
Cats infected with *Yersinia pestis* will develop the bubonic form of the plague. Plague in cats is characterized by fever, lethargy, and enlarged lymph nodes. As the disease progresses, abscesses, lesions, and ulcers may develop on the affected lymph nodes, and signs of vomiting, diarrhea, and weight loss may be present. Dogs that contract the disease are typically asymptomatic and show no clinical symptoms. Rodents harboring disease can have mild to severe infections or have no symptoms at all.

Flea control programs are important for the control and prevention of plague in dogs and cats. Appropriate precautions should be taken around animals suspected of plague. PPE should include gloves, and face mask or shield to protect from air born droplets, eye protection, and protective gowns. For more information regarding plague prevention and signs please consult: [http://www.cdc.gov/ncidod/dvbid/plague/index.htm](http://www.cdc.gov/ncidod/dvbid/plague/index.htm)

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**TETANUS**

Tetanus (lockjaw) is an acute, often fatal disease caused by the toxin of the tetanus bacillus, *Clostridium tetani*. The bacterium usually enters the body in the spore form, often through a puncture wound contaminated with soil, dust, or animal feces, or through lacerations, burns, and minor unnoticed wounds. The organism is commonly found in the intestines of animals where it causes no negative effects. Humans infected through a wound or lesion frequently develop muscle rigidity and painful muscular contractions. Infection may be fatal.

All employees working with animals should be immunized against tetanus at least every ten years. All animal bite or scratch wounds should be thoroughly cleansed and evaluated by a physician.

Additional information regarding tetanus can be found at: [http://www.cdc.gov/nip/diseases/tetanus/default.htm](http://www.cdc.gov/nip/diseases/tetanus/default.htm)

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**Tularemia**

Tularemia is caused by the bacterium *Francisella tularensis* and induces disease in many different species, including wild rabbits and rodents, domestic sheep and pigs, and non-human primates. Rabbits and hares are the primary carriers of tularemia in North America. It is often difficult to diagnose an animal with tularemia because the signs are very non-specific. When infected, rabbits and rodents are listless, depressed, anorexic, and ataxic, with a roughened hair coat and a tendency to huddle. Some animals are asymptomatic and display no clinical signs, while others may be found dead without a history of illness.

There are many different presentations of tularemia that manifest depending upon the route of the infection. Ulcerative tularemia is the most common form of
the disease and usually occurs when handling dead infected animals. People that handle infected animals will develop a skin ulcer at the site where the bacteria enters an open wound. Enlarged lymph nodes will also be present at the region of infection. The pneumonic form of tularemia, while rare, is the most serious form of the disease and results from breathing in aerosols containing the organism. Symptoms include cough, chest pain, and difficulty breathing. These symptoms can be fatal if not treated promptly. Fever, chills, headaches, diarrhea, muscle aches, joint pain, and progressive weakness can develop in all forms of the disease. Person-to-person transmission has never been reported.

While there have been relatively few cases of tularemia in North America, it is a very infectious disease and only a small number of the organisms are required to cause serious infection. It is a very hardy organism and can survive for long periods of time in the environment. Due to these characteristics, if an animal is suspected of having tularemia, good infection control procedures should be practiced. Precautions against bites or scratches should be taken. Gloves should be worn, and any breaks in the skin should be covered when handling animal carcasses. Regular hand washing with soap and water, and cleaning of equipment is also an important preventive measure against tularemia.

More information regarding Tularemia signs and symptoms can be found at: http://www.cdc.gov/tularemia/index.html

If you have had an exposure, illness symptoms, and need medical attention please refer to the information in the Bite Scratch Protocol.

Contact the UCUCA Office at 763-8028

References:
