

BASICS

Pasteurella multocida is the cause of a range of diseases in mammals and birds, including fowl cholera in poultry, atrophic rhinitis in pigs, and hemorrhagic septicemia in wild and domestic ruminants including cattle, buffalo, sheep, goats, deer and antelope.

CLINICAL SIGNS include fever, hypersalivation, nasal discharge, and difficult respiration. They are acute and can occur in 1 to 3 days after exposure.

TRANSMISSION occurs from direct contact with an infected species, with infected oral or nasal secretions from healthy carriers or clinical animals or via contaminated feed and water sources. **HEMORRHAGES** can appear throughout the body with hemorrhagic septicemia.

Although the history, signs, and lesions may aid **DIAGNOSIS**, *P. multocida* should be isolated, characterized, and identified for **CONFIRMATION**. It can be readily isolated from respiratory discharge and internal organs by culture, PCR and ELISA.

Domestic animals can be **TREATED** with antibiotics; early treatment and adequate dosages are important.



**DIRECT
CONTACT**



**BIRDS
&
MAMMALS**

DETAILS

Pasteurella multocida is a Gram-negative, coccobacillus belonging to the Pasteurellaceae family. It can also cause a zoonotic infection in humans, which typically is a result of bites or scratches from domestic pets. Many mammals (including domestic cats and dogs) and birds harbor it as part of their normal respiratory bacteria.

HEMORRHAGIC SEPTICEMIA is a common disease caused by *P. multocida* in deer, cattle, bison, buffalo and antelope. When stressed (by high temperature, humidity, subsequent infections, and nutritional deficiency) these bacteria are shed through mucous membranes. Infection begins in the tonsils and upper respiratory tract and later the internal organs and blood vessels. The bacteria produce toxins which cause tissue damage and inflammation.

FOWL CHOLERA is a characteristic avian disease caused by *P. multocida*. This disease affects domestic and wild birds worldwide. Turkeys and waterfowl are more susceptible than chickens.

CLINICAL SIGNS Depending on the species, mortality can occur 8 to 24 hours after clinical signs become apparent. Small hemorrhages are common, particularly in the heart and on abdominal organs. Fluid can accumulate in the chest and abdomen. The spleen and liver may be enlarged as well.

TRANSMISSION The bacteria is opportunistic in nature and tends to cause disease in individuals who are immunocompromised or have undergone recent stress. The bacteria tends to favor the respiratory and reproductive tracts.

PREVENTION This is a major component in alleviating the loss caused from this disease. Good management practices, including a high level of biosecurity, are essential to prevention. Acknowledging the clinical signs and identifying chronic carriers of the disease is essential for monitoring the disease and reducing the likelihood of an outbreak. Separating domestic animals from wild will also mitigate the likelihood of the disease infiltrating large scale domestic animal operations as well as preserve wildlife populations that have no immunity to the bacteria.

