

Psittacosis

Psittacosis is a Class C Disease. It must be reported to the state within five business days.

Psittacosis is a zoonotic infection caused by an obligate, intracellular bacteria, *Chlamydo-phila psittaci*. The organism was once classified as a species of Chlamydia, but has been found to be antigenically and genetically distinct. The disease is also referred to as ornithosis, a more accurate description that recognizes the potential for all birds, not only psittacines, to act as reservoirs.

Birds are the reservoirs of the disease and the infection is usually transmitted to humans via the aerosol route through dried fecal dust or secretions. Both healthy and sick birds may transmit the organism.

Psittacosis is found throughout the world. Psittacine birds (parrots, macaws, parakeets and cockatiels), turkeys, ducks and pigeons are the most important avian sources in the United States. The disease may also be transmitted to other mammals, such as domestic ruminants and cats. In humans and animals infection can result in systemic disease. Severe illness and abortion have been reported in pregnant women that were exposed to infected sheep.

After an incubation period of five to nineteen days, the disease appears as an acute febrile respiratory infection. Systemic symptoms include fever, chills, cough, headache, myalgia and general malaise. Although the cough is usually nonproductive and respiratory signs frequently mild, the patient often exhibits a characteristic severe interstitial pneumonia on radiographs. Rare systemic complications include pericarditis, myocarditis, endocarditis, hepatitis and neurologic involvement. Fatal cases have occurred.

Diagnosis is often accomplished by serologic testing, although polymerase chain reaction assays are also done. The most common serologic assays are complement fixation and micro-immunofluorescence, although complement fixation does not differentiate the organism from other *Chlamydo-phila* or *Chlamydia* species.

Groups most at risk for psittacosis are poultry workers and farmers, pet shop employees, pet owners and veterinarians. Laboratory workers handling the organism are also at risk.

The organism is sensitive to several macrolide antibiotics and chloramphenicol, however preferred antibacterials are tetracyclines, except in children younger than eight years of age.

In the past ten years, fewer than fifty cases have been reported each year in the United States. The disease is under-reported and is often misdiagnosed. Improved diagnostic tests that differentiate *Chlamydo-phila psittaci* from the more common *Chlamydia pneumoniae* might also be responsible for the reduction in reported cases.

Psittacosis in birds is reportable to animal health officials at the Louisiana Department of Agriculture and Forestry (LDAF). Human infections are often linked to pet bird distributors and

breeders, but tracebacks of infected birds are often not possible due to limited regulation of the pet bird industry.

In 2005, one probable case of human psittacosis was reported in a fifty-eight year old white male. The patient raised doves. In the same year, three confirmed outbreaks of avian psittacosis with potential human exposure were investigated by LDAF and OPH. Two of the cases involved pet birds while one involved a caged flock of pigeons. In these outbreaks no human cases were confirmed, although several cases were suspected. Euthanasia of birds, mass treatment and disinfection of premises were methods of control exercised in the above outbreaks.

There were no other cases reported after 2005.