

# Avian Chlamydiosis, Psittacosis, Ornithosis

Avian chlamydiosis is a zoonotic disease of birds found worldwide. It is caused by *Chlamydophila psittaci* (formerly known as *Chlamydia psittaci*), a gram negative intracellular bacteria. The disease is commonly called psittacosis in people and psittacine birds (e.g. parrots, parakeets) and avian chlamydiosis or ornithosis in other birds.

# **Affected Species**

*C. psittaci* is particularly prevalent among psittacine birds in tropical and subtropical regions, but pigeons, ducks and turkeys are also commonly affected. High mortality can occur in psittacines, and significant economic losses can be seen in turkeys and ducks. *C. psittaci* is a concern in U.S. turkey production and in commercial duck and goose production in central Europe. Outbreaks tend to be more common where there are large numbers of birds in close contact.

#### **Transmission**

The bacteria is shed in oral and respiratory secretions, and feces. Continuous or intermittent shedding can occur for weeks to months, and can be stimulated by stress. The bacteria can survive for days to months in the environment. Transmission occurs primarily by inhalation of airborne particles such as on dust or feathers or aerosolized from dried feces; direct contact and ingestion are also modes of transmission. Feed and water can be contaminated, making them potential sources for transmission.

#### Clinical Signs

Incubation time is variable, and can be a few days to a few weeks. The disease can range from being asymptomatic (even if birds are actively infected and shedding organism) to severe. Clinical signs include loss of appetite, weight loss, green to yellow diarrhea, swelling around the eyes, difficulty breathing, discharge around the eyes and nasal passages, weakness or tremors. Stress from handling, overcrowding or concurrent infections may exacerbate clinical signs.

## Diagnosis

Infection is most commonly diagnosed using polymerase chain reaction (PCR), serology, and culture (limited due to safety concerns). Secretions, feces, or tissues can be used for diagnostic testing.

## **Treatment**

Effective treatment usually includes antibiotics and supportive care.

#### Prevention

No vaccines are available. Housing that prevents contact with potentially infected wild birds, ensures good ventilation, adequate space, and is regularly cleaned and disinfected is



recommended. Management and biosecurity practices such as a visitor policy that prohibits contact with birds, all-in all-out production, and a quarantine process for new additions help prevent disease.

### **Protecting Human Health**

People can become infected when they handle infected birds or by inhaling contaminated dust. Fever, chills, headache, muscle aches, a dry cough and pneumonia may occur. Outbreaks in employees at turkey and duck processing facilities have occurred. People should use good hygiene, frequent handwashing, and appropriate personal protective gear when working with birds. Adequate ventilation and regular cleaning and disinfection of the cages/premises also reduces the spread of disease. For more information visit: California Department of Public Health - Psittacosis.

**Reporting:** This is a reportable disease under regulatory conditions; suspect cases in poultry\* must be reported to CDFA within 48 hours. If your veterinarian has diagnosed *C. psittaci* in your pet birds you should contact your local health care provider. Physicians are required to report human cases to their local public health officer within one working day of identification.

\*Poultry means all chickens, turkeys, turkins, pheasants, peafowl, guinea fowl, quail, ducks, geese, swans, gallinules, doves, pigeons, grouse, partridges, francolin, tinamou, ostriches, and other ratites (including but not limited to the rhea, emu, and cassowary) and hatching or embryonated eggs.

#### **CDFA Animal Health Branch**

Headquarters - (916) 900-5002 Redding District - (530) 225-2140 Modesto District - (209) 491-9350 Tulare District - (559) 685-3500 Ontario District - (909) 947-4462

**USDA-APHIS-VS** (916) 854-3950 or (877) 741-3690

For more information on the Animal Health Branch, please visit: www.cdfa.ca.gov/ahfss/animal health