

Avian Chlamydiosis in Birds

Text adapted from “Chlamydiosis in Birds” brochure, provided by the Association of Avian Veterinarians (AAV). Please contact AAV for copies at: AAV Publications Office Phone: 817-428-7900, Fax: 817-485-4800, Email: aavpublication@aav.org

Avian chlamydiosis, formerly called ornithosis, and most commonly known to human physicians as psittacosis, or (archaic) parrot fever, is a common disease of many bird species and is caused by the organism *Chlamydophila psittaci*. Owners should be fully informed of the implications for their pet birds and the potential for transmission to humans.

TRANSMISSION

Transmission of the disease between birds is primarily through inhalation of contaminated dust from droppings or feathers. Risk of infection is increased by close contact with infected birds that are shedding the organism. For this reason, infected birds that are stressed through shipping, overcrowding, or malnourished will have a greater tendency to shed the organism. Infected birds may shed the organism even if no clinical signs of disease are observed.

CLINICAL SIGNS

The common visible clinical signs of avian chlamydiosis are respiratory and/or gastrointestinal in nature. Lime-green diarrhea associated with inflammation of the liver is not an uncommon feature of this illness. Some birds may show general signs of illness such as lack of appetite, weight loss, depression, diarrhea, discharge from the eyes or nares, or even death. The same general signs listed above are not specific to birds infected with the *Chlamydophila psittaci* organism and are described in avian patients diagnosed with a number of other diseases. Some birds that are actively infected with *Chlamydophila psittaci* may be mildly affected or show no signs of illness at all. Immunosuppression may exacerbate clinical illness. Breeding birds can pass the organism to their young. Baby birds are more susceptible to severe infection than adult birds and may die in the nest or soon after weaning.

DIAGNOSIS

A confirmed diagnosis of avian chlamydiosis in a live bird is often difficult to obtain and depends on the species, length of time since exposure, and general condition of the bird. The most commonly used diagnostic tests include the polymerase chain reaction (DNA-PCR) assay, serology, and culture of the organism. A negative test does not guarantee that a bird is not infected – birds may shed the organism intermittently. Therefore, a negative test may need to be repeated. Current recommendations are that more than one type of test be used when trying to diagnose avian chlamydiosis in a suspect bird. These results should be considered, along with the bird's condition and history, in order to achieve a tentative or confirmed diagnosis. Some veterinarians recommend treatment of all suspected clinical cases with or without a positive laboratory test result. The biggest concern with treatment is the lack of compliance by the bird owner in completing the recommended course of medication.

TREATMENT

If avian chlamydiosis has been diagnosed, or if treatment has been recommended by your veterinarian, all exposed birds in the household should be treated at the same time to reduce the spread or recurrence of the disease. It is imperative that infected birds be isolated during treatment and that certain sanitary measures be employed to prevent spread or reinfection of the disease. The success of treatment depends on all of the medication being given in the recommended dosage and time frame. Antibiotic dosage and feeding should be directed by your veterinarian to ensure adequate levels are being consumed. There are several ways to administer medication: by mouth, by injection, by mixture of the antibiotic in soft foods or drinking water, or through commercially available medicated pellets. Depending on the condition of the patient, other supportive treatment may also be recommended. Your veterinarian will discuss the most appropriate treatment for your bird. Antibiotic treatment must be continued for a minimum of 30- 45 days, depending on species to be effective. During treatment the owner must:

- clean the premises with an appropriate disinfectant;
- use caution when handling droppings and cage debris, take care not to stir up dust while cleaning, keep dust and feather circulation to a minimum to avoid transmission to humans or other birds;
- separate/isolate and seek medical care for other birds showing signs of disease;
- avoid contact with the birds by elderly, pregnant, sick or very young persons, immunosuppressed persons or persons on anti-rejection drugs;
- remove all mineral supplements containing calcium as calcium interferes with the usefulness of the medication;
- reduce stress in the bird's environment as much as possible; and
- follow all treatment instructions as prescribed by your veterinarian.

TRANSMISSION TO HUMANS

Avian chlamydiosis *is* transmissible from birds to humans, although the incidence of transmission is rare considering the high incidence of infection in birds. If anyone in the household with an infected bird develops persistent flu-like symptoms, respiratory distress, fever, chills, headache, weakness, or fatigue, that person should seek the advice of a physician as soon as possible. Treatment is simple and most often successful in humans, but neglect of the symptoms or delayed diagnosis may result in serious illness, especially in immunocompromised persons or those with other underlying medical conditions. *Chlamydophila psittaci* is not the same organism that causes genital chlamydia infection in humans.

PREVENTIVE MEASURES

The following recommendations help reduce the incidence of avian chlamydiosis in flocks or companion birds:

- immediately after purchase, take all newly-acquired birds to an avian veterinarian for chlamydiosis screening tests;
- buy birds from suppliers who routinely screen their birds for the presence of *Chlamydophila psittaci* or who are willing to stand behind the health of their birds in some manner (health guarantee);
- isolate and quarantine all newly acquired birds for a minimum of six weeks;
- maintain appropriate preventative health management as recommended by your avian veterinarian.