

PSITTACOSIS

(Ornithosis, Parrot Fever)

REPORTING INFORMATION

- Class A(2)
- Report by end of next business day
- [Confidential Case Report Card](#) (3812.11, rev. 12/81), [lab report](#) (3833.11), or telephone
- Request completion of the [Psittacosis Case Report Worksheet](#) (PSI 7-8). To be sent by local health department to ODH Bureau of Infectious Disease Control, 246 N. High Street, P.O. Box 118, Columbus, OH 43266-0118

AGENT

Chlamydia psittaci

CASE DEFINITION

Case description

An illness characterized by fever, chills, headache, photophobia, cough, and myalgia.

Laboratory criteria for diagnosis

- Isolation of *Chlamydia psittaci* from respiratory secretions, OR
- Fourfold or greater increase in antibody against *C. psittaci* by complement fixation or microimmunofluorescence (MIF) to a reciprocal titer of ≥ 32 between paired acute- and convalescent-phase serum specimens, OR
- Presence of immunoglobulin M antibody against *C. psittaci* by MIF to a reciprocal titer of ≥ 16

Case classification

Probable: A clinically compatible case that is epidemiologically linked to a confirmed case, or that has supportive serology (e.g., *C. psittaci* titer of ≥ 32 in one or more serum specimens obtained after onset of symptoms).

Confirmed: A clinically compatible case that is laboratory confirmed.

SIGNS AND SYMPTOMS

The incubation period is usually 5-14 days, but longer incubation periods have been reported. There is wide variation in the clinical picture from asymptomatic or mild influenza-like illness to severe pneumonia. With proper treatment, the mortality rate is less than 1%. Persons with symptomatic infection typically have abrupt onset of fever, chills, headache, malaise, and myalgia. They usually develop a nonproductive cough that can be accompanied by breathing difficulty and chest tightness. A pulse-temperature dissociation, enlarged spleen, and rash are sometimes observed and are suggestive of psittacosis. Auscultatory findings might underestimate the extent of pulmonary involvement. Radiographic findings include lobar or interstitial infiltrates. *C. psittaci* infections can result in endocarditis, myocarditis, hepatitis, arthritis, keratoconjunctivitis, and encephalitis. Severe illness, with respiratory failure, thrombocytopenia, hepatitis, and fetal death, has been reported among pregnant women.

DIAGNOSIS

Sputum or Nasopharyngeal Specimens

Obtain sputum sample or nasopharyngeal swabs and store in M4 media (chlamydia transport media). Ship refrigerated specimens overnight to ODHL. Specimens will be forwarded to CDC. If specimen will not arrive at CDC within 48 hours of collection, freeze specimens and ship frozen on dry ice.

Serum Specimens

Collect at least 10 cc of blood in red-topped tube. Serology requires 2-5 cc of serum. Ship refrigerated serum sample to ODHL, which will forward the specimen to CDC. For further information on specimen handling, contact the ODH Laboratory at (614) 644-4660.

EPIDEMIOLOGY

Source

The natural reservoirs of infection are wild and domestic birds, including poultry. *C. psittaci* has been isolated from approximately 100 bird species and is most commonly identified in psittacine birds such as parrots, macaws, cockatiels, and parakeets. Among caged, non-psittacine birds, the organism occurs most frequently in pigeons, doves, and mynah birds. Birds shed the organism in body secretions and feces.

Occurrence

Occurrence is worldwide. Nationally, between 100-200 cases are reported annually. An average of 4 cases are confirmed annually in Ohio. Sixty-three percent of infections are associated with pet birds. Pet store workers, bird hobbyists, and workers in poultry processing plants are at increased risk of exposure.

Mode of Transmission

Transmission occurs by inhalation of the organism in aerosolized fecal dusts of birds, infected nasal discharges, or dust from feathers of infected birds. Apparently healthy birds can be carriers and shed the agent intermittently or even continuously for months. Person-to-person transmission has been suggested, but not proven.

Incubation period

The incubation is usually 5-14 days, but can be longer.

PUBLIC HEALTH MANAGEMENT

Case

Investigation: Trace infection to bird exposure, either pet birds or poultry operation.

Treatment

Antibiotics of the tetracycline group for 10-14 days after temperature returns to normal. Erythromycin is an alternative when tetracycline is contraindicated. Only symptomatic individuals exposed to cases or shedding birds need treatment.

Isolation: No isolation is required, but coughing patients should be instructed to cough into paper tissues.

Follow-up Specimens: Convalescent serum sample should be collected 2-3 weeks after acute specimen.

Public Health Significance: Psittacosis is a Class A reportable disease. Person-to-person transmission has not been proven. Educate the public as to the danger of household or occupational exposure to infected birds.

Contacts

Search for other cases in co-workers if poultry farm or poultry processing plant is the suspected source, or family members if pet bird is the suspected source.

Prevention and Control

Follow-up Specimens

Investigate bird contacts to find the source. The source of suspect birds should be determined and a veterinarian should be consulted for appropriate testing and treatment of infected birds. Shedding birds should be treated with tetracycline- medicated feed for 45 days and retested at 2 weeks and 3 - 6 months following treatment. Treated birds can be reinfected with *C. psittaci*, so treated birds should not be exposed to untreated birds or other potential sources of infection. Aviaries should be thoroughly cleaned and sanitized. The Ohio Department of Agriculture should be notified when the source is a poultry farm or poultry processing plant. Contact: Ohio Department of Agriculture, Division

of Animal Industry, 8995 E. Main St., Reynoldsburg, Ohio 43068, (614) 728-6220 or 1-800-282-1955.

Vaccination

There is no vaccination for psittacosis.

SPECIAL INFORMATION

Reference: Compendium of Measures To Control *Chlamydia psittaci* Infection Among Humans (Psittacosis) and Pet Birds (Avian Chlamydiosis), written and reviewed annually by the National Association of State Public Health Veterinarians (available on the web at www.cdc.gov)