

# PSITTACOSIS

## Disease Overview

Found worldwide, psittacosis is a respiratory infection caused by the bacteria *Chlamydophila psittaci* (formerly *Chlamydia psittaci*). Human cases occur both sporadically and in outbreaks. *C. psittaci* infects wild and domestic birds and poultry. Healthy birds can be carriers and shed when under stress, for example crowding.

## Symptoms

Acute onset of fever, headache, muscle aches and cough. Respiratory symptoms are often mild to moderate. Serious complications can occur.

## Reservoir

Birds are the reservoir - primarily the parrot family (parakeets and parrots) and less often poultry, pigeons and canaries. Although all birds are susceptible, pet birds (for example parrots, parakeets, macaws, lovebirds, and cockatiels) and poultry (turkeys and ducks) are most frequently involved in transmission to humans.

Outbreaks of psittacosis in poultry processing plants have been reported.

## Mode of Transmission

Inhalation of bacteria from dried droppings, secretions, and dust from feathers of infected birds, who may or may not appear ill. Diseased birds, as well as seemingly healthy birds, may shed the agent intermittently and sometimes continuously, for weeks and months. Direct contact with birds is not required.

## Incubation Period

Usually 1 – 4 weeks.

## Period of Communicability

Not normally transmissible person to person.

Rarely, person to person transmission may occur during acute illness with paroxysmal coughing.

## Risk Factors

Increased risk for persons acquiring and/or severe illness:

- Bird owners and occupational health hazard for people whose work brings them into contact with birds, for example aviary and pet shop employees, poultry workers, and veterinarians.
- Immunocompromised patients.

## Surveillance Case Definition

### Confirmed

An illness characterized by fever, chills, headache, cough and myalgia, and laboratory confirmed by either:

- Isolation of *C. psittaci* from respiratory specimens (e.g., sputum, pleural fluid, or tissue), or blood  
OR
- Detection of *C. psittaci* DNA in a respiratory specimen via polymerase chain reaction (PCR) assay,  
OR
- Fourfold or greater increase in antibody by microimmunofluorescence (MIF) between paired acute- and convalescent-phase serum specimens obtained at least 2-4 weeks apart.

### Diagnosis and Laboratory Guidelines

The diagnosis may be suspected in persons with clinically compatible symptoms who have a history of exposure to birds and elevated or increasing antibodies to chlamydial antigens collected 2 – 3 weeks apart.

Confirmation of the diagnosis may be made by appropriate laboratory tests:

- Isolation of *C. psittaci* from respiratory specimens (e.g., sputum, pleural fluid, or tissue).
- Detection of *C. psittaci* DNA in a respiratory specimen via polymerase chain reaction (PCR) assay (turnaround time for test result is 15 days).
- Detection of *C. psittaci* antibody by microimmunofluorescence (MIF) between paired acute- and convalescent-phase serum specimens (turnaround time for test result is 15 days).

### Reporting

Per Policy 2.2 Disease and Event notification to OCMOH and Disease and Event Reporting section

- Routine Surveillance (RDSS) for all confirmed cases

### Case Management

#### Education

Case or relevant caregiver should be informed about:

- Nature of infection, length of communicable period, mode of transmission and disease ecology
- Hand washing
- Personal protective equipment (PPE) should be used when handling birds or cleaning their cages.
- Good bird husbandry

#### Investigation

Determine history of contact with birds belonging to the parrot family, other caged birds, or on poultry farms and contact with bird droppings. Consider pet shops and aviaries as a source of exposure.

If an avian source of infection is identified, consider measures to reduce exposure. This could include quarantine, testing, treatment, and surveillance of birds. Liaise with appropriate authorities.

### **Exclusion/Social Distancing**

Not applicable

### **Treatment**

Antimicrobial agents.

### **Immunization**

Not applicable

## **Contact Management**

### **Education**

Per case management. Individuals exposed to common sources of infection should be educated about symptoms of concern and instructed to seek medical attention if they develop signs or symptoms of the disease within the incubation period.

### **Investigation**

Not applicable

### **Exclusion/Social Distancing**

Not applicable

### **Prophylaxis**

Not applicable

## **Outbreak Management**

Activate the local outbreak plan when an outbreak is declared.