

Avian chlamydiosis

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Psittacosis

- Organism
- Epidemiology – Animals
 - Transmission
 - Diagnosis
 - Treatment

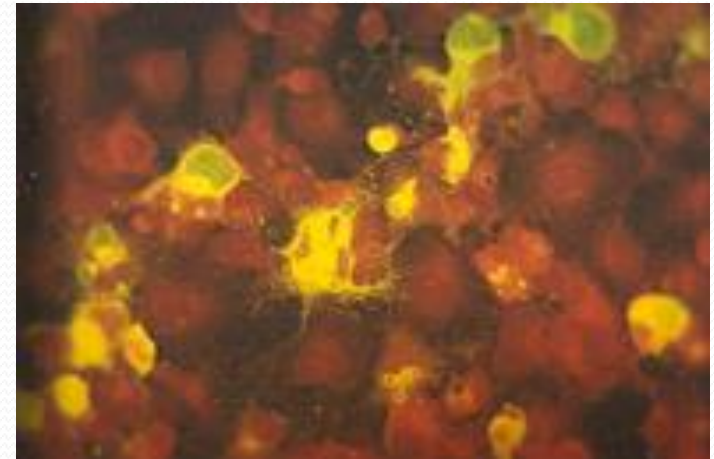
Psittacosis

- *Chlamydophila psittaci*
- Zoonotic (typically transmitted from birds to humans)
- In humans = psittacosis (AKA parrot fever, ornithosis)
- A reportable disease



Chlamydophila psittaci

- *Chlamydophila psittaci*
- Formally *Chlamydia psittaci*
- *Chlamydia* (Genus)
 - *C. pneumoniae*
 - *C. trachomatis*
 - *C. psittaci*



C. psittaci

- Obligate intracellular bacterium
- Environmentally labile
- Elementary bodies
 - Survive outside the host (in litter/feces) and inside host cells for days to weeks
 - Transmission: air circulation, vertical (birds)

C. psittaci

- Wide host spectrum among birds and mammals

Pet psittacine birds are most often implicated in human infection

When birds are infected =
avian chlamydiosis



C. Psittaci -Birds

Not an unusual disease among pet birds

C. psittaci is shed in feces and nasal/ocular discharges

Incubation is usually 3 days to several weeks

Latent infections - disease may appear years after exposure

- Clinical signs include shivering, depression, emaciation, weight loss, dyspnea, diarrhea, ruffled feathers, ocular/nasal discharge
- Outcome varies with
 - Species of bird
 - Strain virulence
 - Infectious dose
 - Host/environmental factors



C. psittaci

- Birds can appear healthy and shed intermittently for months
- Shedding can be activated by stress - shipping, crowding, cold, breeding, etc.
- Diagnosis – culture, IFA, titers, histology
 - Can be difficult, requiring several methods
- Birds with confirmed or probable psittacosis should be isolated and treated under the care of a Veterinarian
- **An important consideration in any lethargic bird with nonspecific illness - especially in a recently acquired bird**

C. psittaci - Birds

- Confirmed case (at least one of the following)
 - Isolation of *C. psittaci*
 - *C.* antigen by IFA of tissues
 - Four fold rise in serologic titer (2 weeks apart)
 - ID of *C.* in macrophages
- Probable case - Clinical illness compatible with psittacosis and:
 - Single high titer obtained after onset, OR
 - *C.* antigen by ELISA, PCR or FA from feces, cloacal swab, respir. or ocular exudates



C. psittaci

- Treatment
 - Many different protocols (species specific)
 - Doxycycline
 - Usually 45 days
 - Fatalities may occur
 - Isolation during treatment
 - Supervised by a veterinarian





Thanks

Jason Stull

Veterinary Public Health Section