



What is *Chlamydia felis*?

- *Chlamydia felis* is a Gram-negative obligate intracellular bacterium.
- It is a major cause of acute and chronic conjunctivitis in cats, particularly in multi-cat households, breeding catteries and pedigrees.
- Although a case of *C. felis* has been reported in man, the risk of zoonotic infection is negligible.

Infection and epidemiology

- *Chlamydia felis* has low viability outside of the host, so close contact between cats is required for transmission.
- Transmission usually occurs through ocular secretions. Although organisms have been isolated in the faeces and vaginal secretions, it is not known if venereal transmission occurs.
- Shedding usually stops after 60 days although in some cats persistent infection occurs.
- The incubation period is 2-5 days.

Clinical signs

- Chlamydiosis typically affects young cats: most cases occur in cats under 9 months of age.
- Ocular signs: initially unilateral, they become bilateral after 1-2 days:
 - Conjunctivitis with hyperaemia of the nictitating membrane
 - Blepharospasm and ocular discharge (initially serous then mucopurulent)
 - Chemosis is a characteristic feature of chlamydiosis.
- Keratitis and ulceration are not common features of chlamydiosis and their presence usually indicates the presence of another pathogen (e.g. FHV).
- Although ocular signs predominate, transient fever, inappetance, weight loss and respiratory signs are occasionally seen.
- It is a possible cause of abortion.

Diagnosis

- PCR is the most sensitive method of detection and is the diagnostic test of choice; typically performed on conjunctival swabs or oropharyngeal cytobrushes (or on aborted fetuses and vaginal swabs); as the organisms are intracellular, good quality samples are required.
- Culture can be performed on conjunctival or oropharyngeal swabs.
- Antigen detection tests (e.g. ELISA) are available but are less reliable than PCR
- Conjunctival smear cytology may reveal intracytoplasmic chlamydial bodies but this technique lacks sensitivity and specificity.
- Serology can be performed to detect serum antibodies; very high titres in unvaccinated cats are consistent with chlamydiosis.

Disease management

- Systemic antibiotics are more efficacious than topical antibiotics.
- Tetracyclines are the antibiotics of choice: doxycycline should be given for at least 3 weeks, i.e. 2 weeks beyond resolution of clinical signs.
- Amoxicillin-clavulanate (especially for young kittens) or fluoroquinolones are alternative choices.
- In multi-cat households it may be necessary to treat all cats until clinical signs have resolved, and then consider vaccination.
- Single housing and routine hygiene measures should be adequate to help control the spread of infection.



Vaccination recommendations

- Vaccination is not indicated for all cats (non-core) but recommended for those in multi-cat households (e.g. breeding catteries, shelters) at high risk of infection or if there has been a history of chlamydiosis.
- Both live and inactivated vaccines for *C. felis* are available but only as components of multivalent vaccines.
- Vaccination helps protect against disease rather than infection.
- Vaccination generally begins at 8-10 weeks of age, with a second injection 3-4 weeks later.
- Annual boosters are recommended for cats that are at continued risk of exposure.

Prognosis

- PCR on swabs can be used to monitor response to treatment.
- Prompt diagnosis and treatment are associated with a favourable prognosis, with signs typically improving within 48 hours of starting appropriate treatment.



Image courtesy of The Feline Centre, University of Bristol

- Ocular swab taken for diagnostic PCR



Image courtesy of The Feline Centre, University of Bristol

- Conjunctivitis and hyperaemia of the third eyelid in a cat with acute *C. felis* infection.



Image courtesy of The Feline Centre, University of Bristol

- Chemosis in a cat with acute *C. felis* infection