Wild Tiger Health Centre Information Sheet

Disease threat: Coxiella burnetti

Hazard description: A globally distributed bacterium, cause of Q fever in humans, and abortion in ruminant livestock. Infection is found in ticks, but transmission may be more commonly by aerosol. Full transmission/epidemiology remains unclear (Ruiz-Fons 2012b).

Host species: Virtually all life kingdoms are able to harbour *C. burnetii* (Ruiz-Fons, 2012b). Most common reservoir hosts are cattle, sheep and goats (Egberink et al. 2013).
Infection has been reported in domestic cats (Egberink et al. 2013). *Coxiella* has been isolated (by PCR) from captive lions in Italy (Torina et al. 2007), and serological evidence of infection has been detected in free-living jaguar in South America (Widmer et al. 2011).

Pathogenesis: *Coxiella* has a tissue tropism for uterus and mammary gland. Low grade fever, anorexia and lethargy have been reported in domestic cats, and the organism has been isolated from aborting cat placenta, but also from normal placental tissue. Animals are largely resistant to disease, with the exception of abortion in ruminant species. In humans, similar low grade signs are common, but more severe disseminated clinical signs including pneumonia may occur, in association with other concomitant disease (Egberink et al. 2013).
Lack of reports suggests wild felids are resistant to disease (not infection).

Diagnosis: Serology, PCR on target organs and serum.

Vaccination: None.

Free-ranging tiger occurrence: No reports found.

Distribution: Pretty much worldwide distribution.

Assumptions: Assume wild felids are relatively resistant to disease.

Limitations: None.