Wild Tiger Health Centre Information Sheet

Disease threat: Hantaviruses

Hazard description: Hantaviruses are bunyaviruses, of which there are more than 21 causing disease in humans. Old World and New World viruses exist. Old World viruses cause HFRS (haemorrhagic fever with renal syndrome) in humans (Jonsson et al. 2010).

Host species: Infection is maintained in rodent reservoir host species, with life-long viral shedding in those species. Insectivore species can also act as also vectors for infection (Heyman 2012). Evidence of infection has been recorded in domestic cats. In a UK study, none of 10 Scottish wild cats were seropositive, just under 10% of domestic and feral cats were seropositive; few clinically healthy cats were seropositive, but 23% of the chronically ill cats were seropositive (Bennett et al. 1990).

Pathogenesis: In both rodents and insectivores, infection appears to be subclinical (Heyman 2012). Without further evidence low pathogenicity in felids is assumed, and any role of infected cats in onward transmission is unknown, but assumed negligible.

Diagnosis: Serology detects viral exposure.

Vaccination: None.

Free-ranging tiger occurrence: No reports found.

Distribution: Worldwide distribution (Jonsson et al. 2010). Assume Old world viruses present in all tiger range states.

Assumptions: Low pathogenicity in wild felids based on absence of reports. Assume no onward transmission from seropositive felids.

Limitations: None.