Wild Tiger Health Centre Information Sheet

Disease threat: Rabies virus

Hazard description: Rabies is caused by a lyssavirus (Artois *et al.* 2012).

Host species: All mammals are susceptible, but felids are only moderately susceptible (Artois *et al.* 2012). Disease has been reported in domestic and captive wild felids, including captive tigers (Arora 1990-1991; Gould & Fenner 1983; Rao & Nayak 1984). Exposure (live positive serology) has been reported from a single clinically healthy free-ranging oncilla (*Leopardus tigrinus*) in Bolivia (Deem *et al.* 2004).

Pathogenesis: The predominant pathological process is that of encephalomyeloradiculitis. Clinical signs include abnormal behaviour, paralysis/lack of muscle co-ordination, and swallowing difficulties (Artois *et al.* 2012). In tigers, both the dumb and furious patterns of clinical disease have been reported (Arora 1990-1991; Burton 1950; Rao & Nayak 1984).

Diagnosis: Several serology options including serum neutralisation assays (Artois *et al.* 2012). Other tests relate to PM diagnostics e.g. CNS tissue fluorescent antibody test (FAT), virus isolation, rabies tissue culture infection test (RTCIT) mouse inoculation test (MIT), and PCR (Artois *et al.* 2012).

Vaccination: Inactivated vaccines are available.

Free-ranging tiger occurrence: Rabies in free-ranging tigers has occasionally been reported (Burton 1950; Pandit 1979).

Distribution: Rabies has a global, but focal, distribution, with some countries declared rabies free e.g. UK, Australia, NZ, Scandinavia (Artois et al. 2012). Present in all tiger range states.

Assumptions: None.

Limitations: None.