Wild Tiger Health Centre Information Sheet

Disease threat: Anthrax (Bacillus anthracis)

Hazard description: A gram-positive aerobic spore-forming bacillus with prolonged spore survival, causing the disease 'anthrax'.

Host species: Anthrax can affect a wide range of mammals, with varying degrees of susceptibility. Susceptibility appears to be greatest in herbivores. Humans, carnivores and suids are more resistant and seen as incidental hosts (Hugh-Jones & De Vos 2002). Reported in captive carnivores, in some cases in association with infected prey/feed (Jager et al. 1990; Verge & Placidi 1934; Konrad 1967). Has been best-studied in wildlife in African ecosystems where outbreaks are not uncommon. In free-ranging systems, cheetahs appear to be more susceptible than other wild carnivores. Death in free-ranging lion and leopard in Southern Africa has also been reported (Hugh-Jones & De Vos 2002)

Pathogenesis: Sudden death is the commonest outcome. Toxins cause necrosis, haemorrhage and oedema.

Diagnosis: Sudden death in ruminant species. Characteristic staining of bacillus capsule on microscopic examination of blood smear.

Vaccination: Available and widely used in domestic livestock in endemic areas.

Free-ranging tiger occurrence: No reports found.

Distribution: Worldwide.

Assumptions: Assume that wild felids (with the exception of cheetah) are relatively resistant.

Limitations: None.