Wild Tiger Health Centre Information Sheet

Disease threat: Snake bites

Hazard description: Across tiger range states there are likely to be many species of venomous snake, particularly tropical and sub-tropical areas (Gutiérrez et al. 2006). A search of the literature found just one report of the death of a captive white tiger from a snake bite in the Kamala Nehru Zoo in north-west India (https://www.aol.com/article/2014/12/29/rare-white-tiger-dies-from-snake-bite-in-zoo/21122158/). Tigers may prey on snakes (Hunter 2015) – and thus are at risk of being envenomed by a bite.

Host species: Any.

Pathogenesis: A variety of mechanisms underpin venom toxicity, including the following, alone or in combination, depending on the exact nature of the venom: local tissue necrosis (swelling, blistering etc.), neurotoxicity (paralysis); rhabdomyolysis (leading to myoglobinaemia and renal failure); spontaneous haemorrhage (possibly cerebral); disseminated intravascular coagulation; acute renal failure; and acute respiratory distress. This is not an exhaustive list since the variety of snake venoms is extensive (Gutiérrez et al. 2006).

Diagnosis: Clinical signs.

Vaccination: Not applicable.

Free-ranging tiger occurrence: An anecdotal report of a tiger found dead in the Sundarbans Tiger Reserve in India, that had eaten a King Cobra and an Indian Cobra (Hunter 2015).

Distribution: For a searchable database of venomous snakes, including a geographical search function based see: http://apps.who.int/bloodproducts/snakeantivenoms/database/default.htm.

Assumptions: None.

Limitations: Data poor.