Wild Tiger Health Centre Information Sheet

Disease threat: Feline herpes virus – FHV-1

Hazard description: Synonym: feline viral rhinotracheitis, is caused by a herpes virus, FHV-1.

Host species: The domestic cat is the main host. Serological evidence of exposure has been reported from free-ranging tigers in Nepal (McCauley et al, 2018), a single tiger in the Russian Far East (Naidenko et al, 2018), free-ranging lions in Africa (Spencer 1991; Spencer & Morkel 1993; Hofmann-Lehmann et al. 1996; Driciru et al. 2006; Ramsauer et al. 2007; Chaber et al. 2017), mountain lions in North America (Paul-Murphy et al. 1994), wild felids in Brazil (Filoni et al. 2006), and European wild cats (Leutenegger et al. 1999; Millán & Rodríguez 2009). In addition, FHV-1 has been associated with clinical upper respiratory tract disease in semi-captive cheetah (van Vuuren et al. 1999), zoo tigers in Italy (Pratelli et al. 1999), and a South China tiger, *Panthera tigris amoyensis* in a China zoo (Sun et al. 2014).

Pathogenesis: Causes upper respiratory tract and ocular infection. Co-infection e.g. with FCV or respiratory bacteria may be common. Latent infection is also a feature (Horzinek, Lloret, et al. 2006).

Diagnosis: PCR on oropharyngeal/oronasal/conjunctival swabs to detect viral shedding. Serology tests available, but their true value is questionable for the detection of latent infection.

Vaccination: Inactivated vaccines are available.

Free-ranging tiger occurrence: No reports of disease were found. Serological evidence of exposure to Feline Herpes Virus has been reported in 5 / 11 free-ranging tigers from Nepal (McCauley et al, 2018) and a single free-ranging tiger in the Russian Far East (Naidenko et al, 2018).

Distribution: Presumed present in all tiger range states.

Assumptions: Assume low likelihood of clinical disease in free-ranging tigers, based on absence of reports.

Limitations: None.