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A 3-year analysis of snake bite reported to the South African poisons information service: 2015-2018

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Objective: Snake bite was listed by the World Health Organisation as a neglected condition in 2009, and it remains a significant cause of human suffering, disability and death. In sub-Saharan Africa, as in many parts of the developing world, comprehensive epidemiological data are scarce. This study aims to provide an analysis of snake bite cases reported to South Africa's largest database of poisons calls over a 3-year period.

Methods: The Poisons Information Helpline (PIH) of the Western Cape in South Africa is a combined service provided by the Red Cross War Memorial Children's Hospital Poisons Information Centre and the Tygerberg Poisons Information Centre. It provides a 24-hour, 7 days-a-week hotline that can be reached by members of the general public and health professionals throughout South Africa for help with managing poisonings. An electronic database recording all calls to the Poisons Information Helpline has been maintained since mid-2015. All call data from June 2015 to May 2018 were retrospectively analysed for calls related to snake bite.

Results: During the 3-year period, 28,561 patient-related poisoning calls were received by the PIH of which 777 or 2.7%, described snake bite. The majority of patients were male (69.2%; n=538) and the mean age was 29 years. Most snake bites occurred in summer (43.5%; n=338). The exact identity of the snake was known in 209 calls (26.9%). With respect to clinical presentation, 28.4% (n=221) of patients showed signs of cytotoxic envenomation, 10.4% (n=81) of neurotoxic, and 4.2% (n=33) of haemotoxic envenomation. Snake venom ophthalmia was recorded in 72 calls (9.3%). The clinical severity of envenomation was graded as moderate in 22.8% and severe in 4.0%. Two deaths were reported, both due to the Cape cobra (*Naja nivea*). Antivenom administration was advised in 95 calls (12.2%).

Conclusion: This study summarises a large number of snake bite calls reported to the PIH in South Africa. Although poisons centre call data has inherent limitations, this study contributes valuable data not previously described. Further research is needed to fully ascertain the epidemiology of snake bite in South Africa. Both clinicians and health authorities should be encouraged to report snakebite cases diligently and accurately.