

Letter to the Editor

Cite this article: Faniyan O, Akintorin S, Regis K, Brissett A, Soyemi K (2018). Letter to editor in response to imported leishmaniasis in Sweden 1993–2016. *Epidemiology and Infection* **146**, 2146–2146. <https://doi.org/10.1017/S0950268818002583>

Author for correspondence:

Kenneth Soyemi,
E-mail: ksoyemi@cookcountyhhs.org

Letter to editor in response to imported leishmaniasis in Sweden 1993–2016

Olumide Faniyan¹, Simi Akintorin², Kevin Regis³, Andre Brissett¹ and Kenneth Soyemi^{1,3}

¹Departments of Pediatrics, Cook County Health and Hospitals System, John H Stroger Jr Hospital, Chicago, Illinois, USA; ²University of Southern California Medical School, Los Angeles, CA, USA and ³Department of Emergency Medicine, Cook County Health and Hospitals System, John H Stroger Jr Hospital, Chicago, Illinois, USA

To the Editor

The article by Söbirk *et al.* ‘Imported leishmaniasis in Sweden 1993–2016 [1],’ affirmed that most cases dating back 20 years were imported. We recently managed a patient aged 12 years who visited the US from the Middle East. He presented to our Emergency Department with chronic rash and ulcer in a lower extremity with reported exposure to pets, and freshwater pools but equivocal exposure to sand-fly. One of our differential diagnoses before referral to a specialist was cutaneous leishmaniasis. While researching the topic we read the article by Söbirk *et al.* in which authors confirmed the same diagnostic challenges and difficulties as frontline practitioners in Sweden face. It has been postulated that Leishmaniasis infections could pose a potential public health threat because of the high prevalence of asymptomatic parasite carriers [2]; however, leishmaniasis is not a reportable disease and there is no surveillance system in the US or Sweden as both countries are considered non-endemic. Surveillance of leishmaniasis inherently has challenges; different operational and research problems concerning epidemiological surveillance of leishmaniasis have been previously reported [3]. Generally, the incidence and distribution depend on the characteristics of the parasite species, the local ecological characteristics of the transmission sites and human behaviour. Animal reservoir hosts (domestic dogs, foxes, gerbils and jackals) also contribute to local incidence. Although the authors acknowledge underreporting, they did not attempt to classify under-reporting rates or adjust the incidence rates using multipliers. The use of conservative assumptions for underreporting rates and resultant multipliers has demonstrated that real leishmaniasis incidence rates may be higher [4]. We acknowledge that this study was a retrospective cohort analysis and not an official surveillance system. Nevertheless, case underreporting affects the characteristics that make a surveillance system robust such as representativeness, sensitivity and positive predictive value and should be carefully considered moving forward [5]. In the last four years, data from Sweden showed that most confirmed cases were in individuals below 18 years of age; the only reason provided was that they were mainly immigrants or travellers from a highly endemic country. The presence of any other underlying cause that makes this age group vulnerable was not addressed in the paper. It would be beneficial if authors could discuss the variances in incidence to help readers understand whether there were specific natural or epidemiological factors or whether it was the complex interplay of socio-economic factors, environmental and climate change, zoonotic seroprevalence or unclear causative factors that contribute to the variations in incidence.

References

1. Söbirk S *et al.* (2018) Imported leishmaniasis in Sweden 1993–2016. *Epidemiology and Infection* **146**, 1267–1274.
2. Michel G *et al.* (2011) Importance of worldwide asymptomatic carriers of *Leishmania infantum* (*L. chagasi*) in human. *Acta Tropica* **119**, 69–75.
3. Gradoni L (2013) Epidemiological surveillance of leishmaniasis in the European Union: operational and research challenges. *Eurosurveillance* **18**, 20539.
4. Alvar VI J *et al.* (2012) Leishmaniasis worldwide and global estimates of its incidence. *PLoS ONE* **7**, e35671.
5. Klaucke DN *et al.* (1988) Guidelines for evaluating surveillance systems. *MMWR Morbidity and Mortality Weekly Report* **37**, 1–18.