

SEASONAL DISEASES

Odyssean malaria outbreaks in Gauteng Province

Infected malaria vector mosquitoes are sometimes transported from malaria-endemic areas and then transmit the disease, a phenomenon known variously as 'odyssean', 'taxi', 'minibus', or 'suitcase' malaria. Two recent such episodes have been investigated by the National Institute for Communicable Diseases (NICD) in partnership with Gauteng district and provincial health departments.

Outbreak 1: a married couple, resident on an isolated smallholding in a game conservancy near Hammanskraal, north of Pretoria (a non-malaria area), and with no history of recent travel, developed symptoms of fever and fatigue on January 6th. Tests for COVID-19 were negative, and their illness got progressively worse until falciparum malaria was diagnosed (at the husband's suggestion, because of his previous experience of malaria), and they were admitted to hospital for parenteral artesunate treatment. Both recovered without complications. Investigations did not reveal the likely source of infection, other than the possibility that they were bitten by the same infected mosquito at a local restaurant in late December. There had been no visitors or workers returning from malaria areas on their property.

Outbreak 2: Four-year-old twin girls and their mother became ill on January 7th. Again, COVID-19 was suspected because of febrile illness but tests were negative. The clinical condition

of all rapidly deteriorated over the next five days, particularly in the children, whose full blood counts for investigation of possible septicaemia revealed profound thrombocytopenia; subsequent blood film examination showed *Plasmodium falciparum* parasites. The patients were treated with intravenous artesunate in hospital and have been discharged. Genotyping of the malaria parasites carried out at NICD showed that the three cases were infected with the same strain, indicating that a single mosquito had bitten all of them. The family had visited a resort in North West Province in late December; although this is not a malaria-endemic area, a resort guest's or worker's vehicle may have released a stowaway infected mosquito.

Recent issues of the Communiqué have emphasised the importance of contemplating malaria in febrile patients with a relevant residence or travel history involving malaria areas, even if COVID-19 or other infection is the primary concern. Odyssean malaria is often a late consideration, in the absence of a travel history. As a consequence diagnosis is typically delayed, with resulting high rates of severe and fatal malaria. We again remind clinicians that during the malaria transmission season, patients who have a progressive febrile illness and no clear diagnosis, should be checked for malaria even in the absence of a history of residence in, or travel to, a malaria risk area. Unexplained thrombocytopenia is an important clue to the diagnosis of malaria.