

**b Tick bite fever alert**

A marked seasonal increase in tick bite fever cases has been noted over the past month. While most infections have been uncomplicated with favourable response to doxycycline treatment, a number of severe infections has been reported to NICD-NHLS. Severe disease with complications (including encephalitis, bleeding, DIC, hepatorenal failure, ARDS, digital gangrene and myocarditis) may mimic other diseases, including Crimean-Congo haemorrhagic fever, meningococcal septicaemia, or fulminant Gram-negative septicaemia. While malaria is always a critical consideration at this time of the year in travellers returning from malaria-endemic areas, healthcare workers should be aware that tick bite fever must feature in the differential diagnosis of acute febrile illness in at-risk persons. Risk factors include travel in Southern Africa, hiking in rural areas, living on small holdings in peri-urban areas, and living/working on farms. However, even persons living in urban areas who are exposed to ticks in the home setting may potentially be at risk.

An eschar, often located by finding tender regional lymphadenopathy, together with fever and headache, should prompt treatment with doxycycline, which is considered the most effective antibiotic. A maculopapular rash, typically including the palms and soles, may be noted in infections with *Rickettsia conorii* but is generally absent in *Rickettsia africae* infections. For pregnant women and children <8 years of age, an initial 48 hours of therapy with doxycycline should be given followed by a macrolide such as clarithromycin or azithromycin to complete the course of therapy. Laboratory testing, including PCR and serology, is not sensitive for the diagnosis in acute disease; antibodies are generally only detectable from day 10 of illness.

**Source:** Division of Public Health Surveillance and Response, NICD-NHLS