

c A case of human brucellosis in Mpumalanga Province

On 23 September 2016, the NICD was informed of a confirmed case of brucellosis in an eight-year-old boy from Mpumalanga Province. *Brucella melitensis* was isolated from a blood culture bottle and identified on the Vitek 2 system. The identification was confirmed by the NICD. The patient initially presented to the clinic in June 2016 with night sweats and secondary enuresis and was referred to a tertiary hospital in Gauteng Province where the diagnosis was made.

Upon further questioning, the family reported consuming unpasteurised milk from a local dairy farm since February 2016. There was no report of direct contact with any animals including cows, sheep, goats and pigs. No family members reported signs and symptoms suggestive of brucellosis. Serology tests done on three family members were negative for *Brucella* antibodies. However, at the farm, 13 out of 68 cattle tested positive for *Brucella* spp. These animals were isolated and later slaughtered.

Following the diagnosis, the patient was treated with doxycycline and rifampicin. Health facilities in the area were requested to have a high index of suspicion in patients presenting with pyrexia of unknown origin or fever not responding to empiric treatment. Health promotion was done in the community regarding heating of fresh milk before consumption. The farmer has stopped selling the milk

to the community. Health promotion was also done at other farms in the community and the Department of Agriculture, Forestry and Fisheries plans to test samples of milk being produced at farms in the sub-district where this community is located.

Brucellosis infection in humans can be caused by *Brucella abortus* (cattle), *B. melitensis* (sheep and goats), *B. suis* (pigs) and *B. canis* (dogs).

B. melitensis causes the vast majority of human brucellosis cases. The usual reservoirs of *B. melitensis* in South Africa are goats and sheep; occasionally, cattle are also affected. *Brucella* infection in humans is acquired through ingestion of contaminated animal products such as milk, or direct contact with infected animals. Symptoms are non-specific and include profuse sweating mostly during the night, fever, arthralgia, myalgia and fatigue. The incubation period is 2–4 weeks but may range from five days to five months.

Source: Centre for Emerging and Zoonotic Diseases, NICD-NHLS; Division of Public Health Surveillance and Response, NICD-NHLS; Steve Biko Academic Hospital NHLS Laboratory; Mpumalanga Department of Health; Emalahleni Veterinary Unit. (outbreak@nicd.ac.za)