

b Suspected enterovirus meningitis/encephalitis outbreak in City of Tshwane, Gauteng Province: final report

Last year in the November and December communiques we reported on a possible enterovirus outbreak in the Tshwane District. In total 42 cases were reported; 40 cases were children under the age of 10 years and 2 cases were adults. The median age of all cases was 4 years (range 1 month to 42 years). All samples from suspected cases were processed at private diagnostic laboratories - 31 samples tested positive for enterovirus and 11 samples were negative; NICD requested all samples for further testing and genotyping.

Of the 42 identified cases, NICD received 18 cerebrospinal fluid specimens and 7 stool specimens from the private diagnostic laboratories. Of the eight samples that could be genotyped, three tested negative for enteroviruses, five were echovirus 6, three were coxsackievirus A9, one was coxsackievirus B2, one was coxsackievirus B4, one was coxsackievirus B5 and one was echovirus 11. The other ten samples could not be genotyped due to low viral load in the samples. Telephonic interviews were conducted with parents of children admitted to hospital and for whom contact information was available. Although there was a suggestion of institutional (crèche/school) and household (sibling) clusters, due to the unavailability of specimens, these clusters could not be confirmed by molecular methods. No additional common risk factors were identified between these children.

Due to the diverse genotypes identified and the fact that we could not type half of the received specimens, no clear conclusions could be made

regarding this cluster of cases, nor whether it was an outbreak or a normal seasonal increase of cases. Historical data from South Africa shows that enteroviruses do cause seasonal increases during summer months (1, 2). More data are needed and NICD has therefore started routine meningitis surveillance at sentinel sites.

Human-to-human transmission of enteroviruses is usually via the faecal-to-oral route and, to prevent spread, improvements in hygiene and sanitation are advised. Children who are ill should stay at home to avoid infecting others. No public health action is required for individual cases and people who are close contacts of viral meningitis patients do not need prophylactic antibiotic treatment.

References

1. Keen GA, McIntyre JP. Summer aseptic meningitis in Cape Town, 1981-1986. *South African Medical Journal* 1986;69(8):473-4.
2. McIntyre JP, Keen GA. Laboratory surveillance of viral meningitis by examination of cerebrospinal fluid in Cape Town, 1981-9. *Epidemiology and Infection*. 1993;111(2):357-71.

Sources: Centre for Respiratory Diseases and Meningitis, NICD-NHLS (cherylc@nicd.ac.za)