



Enteroviral Meningitis

An update for Physicians, Accident & Emergency practitioners and Laboratorians

26 March 2019

Outbreak Response Unit, Division of Public Health Surveillance and Response
Centre for Vaccines and Immunology
National Institute for Communicable Diseases (NICD)
24-hour hotline number: 082-883-9920

An increase in the number of enteroviral meningitis cases has been reported from the Western Cape and Eastern Cape since November 2018. All reported cases have resolved spontaneously and there have been no deaths. Enteroviral meningitis is a mild form of meningitis due to an enterovirus infection. Case numbers of enteroviral meningitis usually increase in warmer months. Enteroviruses, which include echo- and coxsackie viruses, are transmitted by faeco-oral transmission. Good hygiene may prevent transmission. The NICD and NHLS are conducting surveillance for enteroviral meningitis to better understand the reason for the increase in cases. Health care workers are requested to identify cases and submit specimens to the NICD/NHLS for testing (see below for details).

Enteroviral Meningitis Case Definitions

A suspected Case:

An individual presenting with meningitis or encephalitis symptoms (these may include headache, vomiting, fever, stiff neck, loss of appetite, photophobia), and an 'aseptic' picture on CSF (lymphocytic predominance with normal or slightly raised CSF protein) and negative for bacterial pathogens on CSF investigation.

A confirmed Case:

An individual presenting with meningitis or encephalitis symptoms (see above) and detection of enterovirus/es from CSF.

Transmission of enteroviruses

Enteroviruses replicate in the gastro-intestinal system and are transmitted faeco-orally. Infection occurs when viral particles are ingested or get onto mucous membranes. Some enteroviruses can be transmitted through droplet spread from respiratory secretions.

Specimen collection for lab diagnosis of enteroviral meningitis

- If clinically indicated, perform a lumbar puncture to obtain a CSF specimen from a suspected case. Be sure to follow appropriate aseptic procedures.
- Collect CSF into sterile red-topped tubes.
- If other tests need to be done, request for left-over sample to be submitted for enterovirus testing.
- Complete a specimen request form with patient and requestor details. Mark the form clearly: '*Suspected enteroviral meningitis for attention Tygerberg NHLS Med. Virology*'. Specimens can also be sent to '*Centre for Vaccines and Immunology, National Institute for Communicable Diseases, Sandringham*'
- Keep tube at +4°C (fridge temperature) and ship in insulated box on ice or with cooler packs, if possible.
- Enteroviruses are shed for longer periods in stool, therefore please also submit stool samples. Collect in sterile specimen jars and label and transport as above.

Response to a suspected enteroviral meningitis case

1. Establish that the patient meets the case definition for a suspected case of enteroviral meningitis.
2. Complete a case investigation form (CIF) on the NICD website under 'Diseases A-Z', 'Enteroviral meningitis'. Submit CIF to province CDCC and to the NICD at 'outbreak@nicd.ac.za'
3. Create a line list of patients with suspected enteroviral meningitis.
4. If >2 cases of enteroviral meningitis are suspected within a week, inform the NICD hotline (082-883-9920) and notify the local and provincial communicable disease control coordinator (CDCC) telephonically.
5. Observe appropriate infection control and prevention measures (standard precautions e.g. good hand hygiene practices before and after patient contact, after changing nappies or using the bathroom; disinfection of surfaces and use of personal protective equipment etc.)
6. Counsel family of the patient regarding appropriate infection control measures.

Managing a suspected enteroviral meningitis case

- There is no specific treatment for enteroviral meningitis.
- Most people who get enteroviral meningitis completely recover on their own usually within 7 to 10 days.
- Supportive treatment to relieve symptoms is recommended
- Antibiotics do not help viral infections, so they are not useful in the treatment of viral meningitis.

For more information about enteroviral meningitis visit www.nicd.ac.za 'Diseases A-Z'