Enteovirus 71 (EV71) Neurological Disease

Status: Resolved
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Issued to: Hospitals and laboratories

Key messages
- Enteovirus 71 (EV71) has been confirmed in a number of children in New South Wales and more recently in Victoria, and has caused severe neurological disease in young children. Hand, Foot and Mouth disease (HFMD), or a history of contact with a case of HFMD, are occasional but not consistent findings in these children.
- Children under five years of age are most likely to develop complications of EV71 infection.
- Any child presenting with a febrile illness and neurological features (including irritability) should have a diagnosis of EV71 considered.
- Testing for EV71 by PCR should be performed on stool specimens and throat swabs (or NPA). Positive isolates from patients should be sent for characterisation to the Enterovirus Reference Laboratory at VIDRL (telephone 9342 2600).
- Children with suspected complicated EV71 infection should be cared for in a single room with contact precautions in place.

What is the issue?
In recent months a number of children presenting to hospitals in New South Wales with acute febrile illness and neurological complications have been diagnosed with enterovirus 71 (EV71). These complications have included meningo-encephalitis, acute paralysis, and transverse myelitis which can be followed by rapidly progressive, and potentially fatal, cardio-respiratory collapse due to neurogenic pulmonary oedema.

Several cases have now been diagnosed in Victoria.

Who is at risk?
Children under five years of age, particularly those under 2 years, are most likely to develop complications from EV71 infection. Hand, Foot and Mouth disease (HFMD), or a history of contact with a case of HFMD, are occasional but not consistent findings in these children.

Symptoms and transmission
Warning signs include myoclonic jerks, urinary retention, neurological signs, altered consciousness, and cardiac or respiratory features including bradycardia, tachycardia, tachypnoea, and respiratory distress.
Any child presenting with a febrile illness and neurological features (including irritability) should have a
diagnosis of EV71 considered and should be discussed with an emergency consultant or paediatrician. Those
with concerning neurological features or signs should be discussed with a paediatric neurologist.
Appropriate testing for EV71 includes the collection of a stool specimen and throat swab (or NPA) for
enterovirus PCR. For children undergoing LP, enterovirus PCR should be ordered on CSF samples in addition
to other usual investigations.

If enterovirus is detected in a child with a clinically consistent illness, the sample should be sent for sequencing
to determine if the individual has EV71 infection. This testing can be performed at the Enterovirus Reference
Laboratory at VIDRL (telephone 9342 2600)

Enteroviruses are typically transmitted via contact with faeces or respiratory secretions so children with
suspected complicated EV71 infection should be cared for in a single room with contact precautions in place.

**Prevention/treatment**

Children with suspected complicated EV71 infection should be cared for in a single room with contact
precautions in place, as enteroviruses are typically transmitted via contact with faeces or respiratory secretions.

**More information**

**Clinical information** –

**Consumer information**

Information for consumers is available at

**Contacts**

For telephone notifications, call 1300 651 160 during business hours.

Yours sincerely

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Chief Health Officer

Authorised by the Victorian Government, Melbourne.