

Chief Health Officer Advisory

30 December 2015

Status: Active

Human Parechovirus (HPeV)

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Date issued:	30 December 2015
Issued by:	Dr Simon Slota-Kan, Acting Chief Health Officer, Victoria
Issued to:	Health professionals, medical microbiologists

Key messages

- There has been an increase in detection in Human parechovirus (HPeV) in Victoria
- Human parechovirus occurs commonly in the general population, and usually causes a mild respiratory and gastrointestinal illness in young children.
- Some strains can cause a severe sepsis-like and neurological illness in neonates and young infants.
- Human parechoviruses can present like echoviruses in infants, however are not currently detected using standard enterovirus tests used in most pathology services. **Parechovirus PCR** should specifically be requested, and is performed through the Victorian Infectious Diseases Reference Laboratory (VIDRL).
- No specific therapy is available; treatment is aimed at symptom relief and supportive care.
- Good hygiene practices are vital to protect against gastrointestinal illnesses, including HPeV infection.
- No vaccine is available to prevent HPeV infection.

What is the issue?

Human parechovirus belongs to the Picornaviridae family of viruses. There has been a large increase in the number of HPeV cases detected at the Victorian Infectious Diseases Reference Laboratory (VIDRL) since the beginning of August 2015 when compared to previous years. Most cases have been in young children and infants.

Human enteroviruses (EVs) and more recently parechoviruses (HPeVs) have been identified as leading viral causes of neonatal sepsis-like disease and meningitis.

Like enteroviruses, HPeV infection has a seasonal pattern, with a higher number of cases during the spring, summer and autumn months, in line with other gastrointestinal illnesses.

HPeV have culture characteristics like enteroviruses, but do not share polymerase chain reaction (PCR) similarity. For this reason, additional testing needs to be undertaken (see 'How is it diagnosed?').

Human parechovirus infection is not a notifiable condition in Victoria.

Who is at risk?

HPeV infection occurs commonly in the general population. Children are more likely to develop symptoms, and neonates and young infants are at risk of more severe disease.

Consider HPeV as a differential diagnosis in neonates and young infants presenting with meningoencephalitis or a sepsis-like syndrome.

What are the symptoms?

Most people infected with HPeV experience no symptoms (50-80%). Some people may develop a mild gastrointestinal or respiratory illness characterised by diarrhoea, cold and flu-like symptoms and fever.

Some strains of HPeV can lead to more severe disease such as sepsis-like syndrome, meningitis, encephalitis, flaccid paralysis, seizures and hepatitis. Infants, particularly under the age of 3 months, are more likely to develop severe disease. They may become unwell very quickly and present with fever, irritability, tachycardia, pain, drowsiness, lethargy and an erythematous skin rash.

How is it spread?

HPeV is usually spread from person to person through contact with respiratory droplets, saliva or faeces from an infected person. It can also be spread through inanimate objects and surfaces that have been contaminated with infected secretions.

How is it diagnosed?

HPeV is not detected by standard enterovirus polymerase chain reaction (PCR) tests used at most pathology services. **Parechovirus PCR** should specifically be requested, and is performed through the Victorian Infectious Diseases Reference Laboratory (VIDRL).

VIDRL tests for HPeV whenever enterovirus testing is requested (dual testing) and can be performed on stool specimens, nasopharyngeal aspirates or throat swabs, cerebrospinal fluid (CSF) or whole blood (EDTA). Stool and CSF are the preferred samples.

Laboratories should consider automatically sending to VIDRL for HPeV testing, all CSF samples in infants less than 6 months of age when enterovirus PCR has been requested.

How is it treated?

There is no specific treatment available. Treatment is aimed at supportive care and symptom relief. Severely unwell cases need to be assessed and treated for suspected sepsis under the care of an emergency consultant or paediatrician.

How is it prevented?

The best way to prevent parechovirus infection is the same as for prevention of all viral gastrointestinal illnesses. Hand hygiene and contact precautions should be implemented (including gloves, gown, plastic apron, mask and eye protection).

For the public, good hygiene is the best protection. This includes hand washing, cough etiquette, cleaning of soiled clothing and surfaces, and social distancing when unwell.

There is no vaccine to protect against HPeV infection.

What is the public health response?

HPeV infection is not a notifiable condition in Victoria. The Victorian Department of Health and Human Services works with clinicians and VIDRL to monitor outbreaks of severe cases.

More information

[Better Health Channel - Human Parechovirus](#)

Contacts

For further information, please contact the Communicable Disease Prevention and Control section at the Department of Health and Human Services on 1300 651 160.

Yours sincerely

A handwritten signature in black ink, appearing to read "Simon Slota-Kan".

Dr Simon Slota-Kan
Acting Chief Health Officer

Authorised by the Victorian Government, 1 Treasury Place, Melbourne.