Health warning on mosquitoes

**Status:** Resolved  
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**Issued by:** Dr Michael Ackland, Deputy Chief Health Officer, Victoria  
**Issued to:** Health professionals

**Key messages**

- Murray Valley encephalitis virus (MVEV) has been detected in sentinel chicken flocks bordering northern Victoria.
- Murray Valley encephalitis (MVE) is a rare but potentially fatal disease. The last confirmed human case of MVE in Victoria occurred in 1974.
- Consider MVE in any patient who presents with a compatible illness and who has been in the Murray-Darling river basin area during the past four weeks.
- Immediately notify the Department of Health of any suspected cases of MVE.

**What is the issue?**

New South Wales Health’s mosquito-borne disease surveillance program has detected MVEV in a sentinel chicken flock bordering Victoria. Sentinel chicken flocks serve as an early warning system for potential human cases of this mosquito-borne disease. Victoria also conducts surveillance using sentinel chicken flocks and MVEV has not been detected in any Victorian flocks this summer, however testing continues. These findings indicate the presence of infectious mosquitoes in the Murray-Darling river basin area.

An increase in the number of mosquitoes in this region has been detected in the last two weeks. Unseasonably heavy rain and warm weather in the area have created conditions ideal for mosquito breeding. The school holiday period is a time of increased outdoor activity and travel to mosquito-prone areas. Anyone who resides in or has visited the Murray-Darling river basin area in the past four weeks is at risk.

**Clinical features**

Most cases of MVE infection are asymptomatic. Mild cases may present with fever and a headache, nausea, vomiting and a rash. In some cases encephalitis may develop with drowsiness, confusion, lethargy, neck stiffness, photophobia, ataxia and speech disturbances or seizures. In severe cases coma and respiratory failure develop. Symptoms of MVE usually occur 7 – 28 days after a mosquito bite.

Expert advice on case management can be obtained from the Victorian Infectious Diseases Service (VIDS) located at the Royal Melbourne Hospital (telephone 03 9342 7000).
Diagnosis and Testing

Diagnosis depends on seroconversion demonstrated on two blood specimens separated by 7-10 days. If you suspect MVE, take blood for serology and PCR and send to Victorian Infectious Diseases Reference Laboratory (VIDRL) (telephone 03 9342 9660 in hours, and 03 9342 2662 after hours). When symptoms of encephalitis are present, PCR on CSF taken in the first few days of illness may identify MVEV. Inform VIDS whenever blood or CSF is sent for urgent testing.

Prevention and Treatment

There is no vaccine for MVE.

There are simple steps to protect against mosquito-borne diseases:
• use insect repellents regularly containing picaridin or DEET as an active ingredient on exposed skin areas when outdoors
• ensure that insect screens fitted to doors and windows are in good condition
• use mosquito coils or citronella candles in small outdoor protected areas
• wear long, loose-fitting clothing, preferably in light colours
• where possible, remove stagnant water around homes and campsites.

Murray Valley encephalitis is a group A notifiable disease. Notify suspected cases immediately by telephone to the Department’s Communicable Disease Prevention & Control section on 1300 651 160.

More information

Clinical information

Consumer information
Beat the Bite - Better Health Channel

Contacts
Beat the Bite resources can be ordered at:
infectious.diseases@health.vic.gov.au

Yours sincerely

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Deputy Chief Health Officer

Authorised by the Victorian Government, Melbourne.