

Chief Health Officer Advisory

12 November 2013

Status: Active

Measles in returned travellers from Bali

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Date issued: 12 November 2013

Issued by: Dr Michael Ackland, Acting Chief Health Officer, Victoria

Issued to: Health professionals

Key messages

- There have been five confirmed cases of measles in returned travellers from Bali in Indonesia since the beginning of October, and confirmed onwards transmission in Victoria to three contacts.
- Ensure that all individuals planning travel to Bali who were born during or since 1966 have been given at least one, ideally two doses of measles-containing vaccine prior to travel, or have serological evidence of protection.
- Consider the possibility of measles in patients with rash and fever and any of cough / coryza / conjunctivitis, with an onset of 18 days or less since return from Bali.
- Minimise the risk of transmission within your department or practice through immediate isolation of suspected cases.
- Use the most appropriate tests for diagnosis depending on timing of symptoms and presentation:
 - Take blood for serological confirmation in all suspected cases. If a patient has measles, IgM is generally positive if the rash has been present for three or more days. IgG in the absence of IgM indicates the patient is protected and means measles is unlikely.
 - Nose and throat swabs for PCR diagnosis are best for early diagnosis (including prior to rash); you must contact the Department prior to taking swabs to gain approval for these to be tested at the Victorian Infectious Diseases Reference Laboratory. PCR testing for measles does not attract a Medicare rebate.
- Notify the Communicable Disease Prevention and Control Section at the Department of Health immediately on 1300 651 160 of all suspected and confirmed cases

What is the issue?

Recent transmission of measles in Bali has resulted in Australian travellers developing the disease and returning home and infecting others. Five cases have been confirmed in Victoria. Other states, including Western Australia and New South Wales, have also had cases linked to travel to Bali.

Who is at risk?

- Children or adults born during or since 1966 who do not have documented evidence of receiving two doses of a measles-containing vaccine or documented evidence of laboratory-confirmed measles are considered to be susceptible to measles. People who are immunocompromised are also at risk.

- Individuals described above planning to travel to Bali and other overseas destinations where measles is present.
- Individuals described above recently returned from overseas, especially Bali, and those in contact with them.

Symptoms and transmission

Clinical features of measles include a prodrome of fever, cough, conjunctivitis and coryza. A characteristic rash then appears on the third to seventh day. Individuals, especially children, are typically unwell.

The most important clinical predictors are the following features:

- generalised maculopapular rash, usually lasting three or more days, AND
- fever (at least 38°C, if measured) present at the time of rash onset, AND
- cough or coryza or conjunctivitis.

Measles is transmitted by airborne droplets and direct contact with discharges from respiratory mucous membranes of infected persons, and less commonly by articles freshly soiled with nose and throat secretions.

Measles is highly infectious and can persist in the indoor environment for up to two hours. It can cause serious illness including pneumonia.

The incubation period is variable and averages 10 days (range: 7 – 18 days) from exposure to the onset of fever, with an average of 14 days from exposure to the onset of rash. The infectious period of patients with measles is taken as five days before, to four days after, the appearance of the rash.

The picture below is typical of the rash on the face. This is rash on day three in a young boy.



Picture courtesy of U.S. Centers for Disease Control and Prevention

Prevention/treatment

For Victorians planning overseas travel, including to Bali:

- Ensure that all individuals planning travel to Bali who were born during or since 1966 have been given two doses of measles-containing vaccine or have serological evidence of protection. If travelling within the next month, provide the first dose before departure and the second on return.

For Victorians returning from overseas travel, including from Bali:

- Be alert for new measles cases – ensure all staff, especially triage nurses, have a high index of suspicion for patients presenting with a febrile rash.
- Consider the possibility of measles in patients with rash and fever and any of cough / coryza / conjunctivitis, with an onset of 18 days or less since return from Bali.
- Minimise the risk of measles transmission within your department or practice:
 - avoid keeping patients with a febrile rash illness in shared waiting areas;
 - give the suspected case a single use mask and isolate them, until a measles diagnosis can be excluded;
 - leave vacant all consultation rooms used in the assessment of patients with suspected measles for at least two hours after the consultation.

- Use the most appropriate tests for diagnosis depending on timing of symptoms and presentation:
 - Take blood for serological confirmation in all suspected cases. If a patient has measles, IgM is generally positive if the rash has been present for three or more days. IgG in the absence of IgM indicates the patient is protected and means measles is unlikely.
 - Nose and throat swabs for PCR diagnosis are best for early diagnosis (including prior to rash); you must contact the Department prior to taking swabs to gain approval for these to be tested at the Victorian Infectious Diseases Reference Laboratory. PCR testing for measles does not attract a Medicare rebate.
- Notify the Communicable Disease Prevention and Control Section at the Department of Health immediately on 1300 651 160 of all suspected and confirmed cases.
- On advice from the Department, follow up all persons who attended the emergency department or clinic at the same time as a case and for two hours after the visit. These people are considered to be exposed to the measles virus.
- Check your staff vaccination records to make sure staff are protected.

Earlier outbreaks have affected health care workers, including some who have not been involved in the direct care of measles cases and have only been in the same ward, clinic, or department as a case. All staff born during or since 1966 should have documentation of two doses of measles-containing vaccine, or laboratory-confirmed evidence of past measles infection.

More information

Clinical information

The Australian Immunisation Handbook; 10th edition, 2013.

[http://www.health.gov.au/internet/immunise/publishing.nsf/Content/EE1905BC65D40BCFCA257B26007FC8CA/\\$File/handbook10.pdf](http://www.health.gov.au/internet/immunise/publishing.nsf/Content/EE1905BC65D40BCFCA257B26007FC8CA/$File/handbook10.pdf)

The Blue Book – Guidelines for the control of infectious diseases

[http://docs.health.vic.gov.au/docs/doc/FE2665DB66894C46CA2578B0001BE87E/\\$FILE/bluebook.pdf](http://docs.health.vic.gov.au/docs/doc/FE2665DB66894C46CA2578B0001BE87E/$FILE/bluebook.pdf)

Consumer information

Information for consumers is available at:

Better Health Channel - <http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Measles?open>

The Australian Government Travel Advisory: www.Smarttraveller.gov.au

Contacts

For further information please contact the Communicable Disease Prevention and Control section at the Department of Health on 1300 651 160 (business hours) or 1300 790 733 (after hours).

Yours sincerely

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Authorised by the Victorian Government, Melbourne.