

Measles

Chief Health Officer Alert

Status:	Active
Date issued:	28 September 2017 (update to 18,19 and 27 September 2017)
Issued by:	Dr Brett Sutton, Deputy Chief Health Officer (Communicable Diseases), Victoria
Issued to:	General Practitioners and Hospital Emergency Departments

Key messages

- **There have been four further cases of measles confirmed in Melbourne, with a total of seven cases diagnosed in the past two weeks. The four new cases are known contacts of the previous cases.**
- **The four (4) new cases, cases four to seven,** were infectious whilst at a number of places across Melbourne.
- **Please see below for exact locations and dates.**
- **Key locations include:** MCG Saturday September 23, 727 Collins Street and surrounding cafes, Melbourne Airport and Qantas lounge, Chadstone shopping centre, the Australian Ballet at the State Theatre and DFO Essendon.
- **Cases 1-2 and 4-7** all acquired measles in Australia.
- **Case 3** acquired measles in Romania and was infectious while on flight QR222 departing Romania (Bucharest) on 12 September via Doha Qatar, arriving Melbourne on 13 September on flight QR904.
- **Be alert for measles** in patients presenting with a fever at rash onset, particularly if they attended any of the places listed below or flew on the Romanian flight. Symptoms may have started anytime from 5 September. New cases may show symptoms up until 15 October 2017.
- **Manage suspected cases** in GP setting if appropriate and avoid sending to a hospital emergency department unless patient is severe enough to warrant admission to hospital.
- **Isolate suspected cases** to minimise the risk of transmission within your department/practice.
- **Notify** the Communicable Disease Prevention and Control Section at the Department of Health and Human Services on 1300 651 160 of suspected cases immediately.
- **Take blood for measles serology** in all suspected cases.
- **Discuss whether to take nose and throat swabs** for PCR with the Department if your suspicion for measles is high. Approval is required prior to PCR testing at the reference laboratory. PCR testing for measles does not attract a Medicare rebate.

What is the issue?

There have been seven confirmed cases of measles notified in Victoria in the last two weeks. Two initial cases acquired their illness locally, the third case was infected in Romania, and four new cases, cases four to seven, were contacts of cases one and two.

The source of the infection is unknown at this point. This means there may already be further cases in the community which have not been diagnosed.

As measles is highly infectious through airborne transmission, other secondary cases (either related to the unknown source or the five diagnosed cases) could occur in susceptible people. Measles has an incubation period of between 7 and 18 days (average 14 days from exposure to rash) so should be considered in any susceptible person who presents with a compatible illness, with an onset date between 5 September 2017 and 15 October 2017.

Cases spent time whilst infectious at the following locations:

- 6 September - IKEA Richmond (11am – 1pm)
- 7 September - Spotlight Carnegie (11.30am – 12.30pm), Chadstone Shopping Centre - specifically Kmart (12pm – 3.30pm)
- 8 September - Federation University, Ballarat (Mt Helen campus)
- 9 September - Chadstone Shopping Centre (10am – 1pm)
- 11 and 12 September - Frankston Train line (peak hour travel time) – Armadale Station and Southern Cross Station, Collins St, Docklands
- 12 September - flight QR222 departing Romania (Bucharest) on 12 September via Doha Qatar, arriving Melbourne on 13 September on flight QR904
- 13 September - IKEA Richmond (11am – 1.30pm)
- 20 September - Metro trains - North Richmond, Southern Cross, Murrumbeena, South Yarra stations. Wholesale Pharmacy Balaclava, Virgin Active Gym (Collins St), Collins Square
- 21 September - Metro trains - North Richmond and Southern Cross stations, Collins Square
- 22 September - Metro trains - North Richmond and Southern Cross stations. Wholesale Pharmacy Balaclava, Virgin Active Gym (Collins St), Collins Square, State Theatre, Australian Ballet Alice in Wonderland
- 23 September - Church St, Victoria St, Punt Rd and Swan St (Richmond), The Posty Bar (Richmond), MCG – AFL preliminary final (Gate 5, Level 4), Oscar Cooper Cafe (Greville Street Prahran) Pidapipo Icecream (Chapel Street, Windsor), Maribynong Boathouse, Lincoln Street Hair Salon (Essendon), Corner Store Cafe (Yarraville)
- 24 September- Carnegie area, Melbourne International Airport, Qantas Club Lounge (8am - 10am) Qantas airways flight QF 29 to Hong Kong, Kmart Moonee Ponds, DFO Essendon, Little Byrd Cafe (Union Road, Ascot Vale)
- 25 September - Carnegie area

Susceptible people who have attended any of these places are at risk of measles and may have symptom onset anytime from 13 September until 15 October 2017. Symptom onset can occur any time between 7 and 18 days after exposure.

Anyone who presents with signs and symptoms compatible with measles should be tested and notified to the Department. There should be an especially high index of suspicion if they have attended any of the areas stated above and are unvaccinated or partially vaccinated for measles.

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 do not have documented evidence of immunity are considered to be susceptible to measles. People who are immunocompromised are also at risk.

Symptoms and transmission

Clinical features of measles include prodromal fever, a severe cough, conjunctivitis and coryza. 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, 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 environment for up to two hours.

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 roughly five days before, to four days after, the appearance of the rash.

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 reliably 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.

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



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

Recommendations

- 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.
- Notify suspected cases immediately to the Communicable Disease Prevention and Control Section via telephone on 1300 651 160 (24 hours).
- Manage suspected cases in GP setting if appropriate and avoid sending to a hospital emergency department unless patient is severe enough to warrant admission to hospital.
- Take blood for serological confirmation.
- Call the department to discuss the need for PCR diagnosis.
- To minimise the risk of measles transmission within your department/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 30 minutes after the consultation.
- Seek advice from the Department of Health and Human Services Communicable Disease Prevention and Control Section regarding:
 - the management of susceptible hospital or clinic contacts
 - prevention of measles in susceptible contacts.
- On advice, follow up all persons who attended the emergency department or clinic at the same time as a case and for 30 minutes after the visit. These people are considered to be exposed to the measles virus.
- Check your staff vaccination records.
- 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.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/Handbook10-home~handbook10part4~handbook10-4-9>

The Blue Book – Guidelines for the control of infectious diseases

<https://www2.health.vic.gov.au/public-health/infectious-diseases/disease-information-advice/measles>

Consumer information

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

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 (24 hours).



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