



Dengue virus infection

Australian national notifiable diseases case definition

This document contains the surveillance case definition for dengue virus infection, which is nationally notifiable within Australia. State and territory health departments use this definition to decide whether to notify the Australian Government Department of Health and Aged Care of a case.

Version	Status	Last reviewed	Implementation date
1.0	Initial CDNA case definition	2004	2004

Reporting

Both **confirmed** cases and **probable** cases should be notified.

Confirmed case

A confirmed case requires:

- **Laboratory definitive evidence** and **clinical evidence**

Laboratory definitive evidence¹

- Isolation of dengue virus

OR

- Detection of dengue virus by nucleic acid testing

OR

- Detection of non-structural protein 1 (NS1) antigen in blood by EIA

OR

- IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre to dengue virus, proven by neutralisation or another specific test

OR

- Detection of dengue virus-specific IgM in cerebrospinal fluid, in the absence of IgM to Murray Valley encephalitis, West Nile virus /Kunjin, or Japanese encephalitis viruses

Clinical evidence

A clinically compatible illness (e.g. fever, headache, arthralgia, myalgia, rash, nausea/vomiting)

Probable case

A probable case requires:

- **Laboratory suggestive evidence** and **clinical evidence** and **epidemiological evidence**

OR

- **Clinical evidence** and **household epidemiological evidence**

Laboratory suggestive evidence

- Detection of NS1 antigen in blood by a rapid antigen test²

OR

- Detection of dengue virus-specific IgM in blood

Clinical evidence

As for confirmed case

Epidemiological evidence

- Exposure, between 3 and 14 days prior to onset, in

Either

- a country with known dengue activity

OR

- a dengue-receptive area³ in Australia **where** a locally-acquired or imported case has been documented with onset within a month

Household epidemiological evidence

- Living in the same house⁴ as a locally-acquired case in a dengue-receptive area³ of Australia within a month of the onset in the case.

AND

- At least one case in the chain of epidemiologically linked cases (which may involve many cases) is laboratory confirmed.

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1. Confirmation of the laboratory result by an arbovirus reference laboratory is required if the infection was acquired in Australia but outside a dengue-receptive area as defined in the Dengue National Guideline for Public Health Units.
 2. Unless dengue NS1 antigen by EIA is negative
 3. As defined in the Dengue CDNA National Guideline for Public Health Units.
 4. The case must have spent all the exposure period (from 14 days prior to onset to 3 days prior to onset) living in the same house as the epi-linked confirmed case.