

REVISED SURVEILLANCE CASE DEFINITIONS

This report provides the revised Surveillance case definitions approved by the Communicable Diseases Network Australia (CDNA) since 1 January 2015.

The Case Definitions Working Group (CDWG) is a subcommittee of the CDNA and comprises members representing all states and territories, the Australian Government Department of Health, the Public Health Laboratory Network, OzFoodNet, the Kirby Institute, the National Centre for Immunisation Research and Surveillance and other communicable disease

experts. CDWG develops and revises surveillance case definitions for all diseases reported to the National Notifiable Diseases Surveillance System. Surveillance case definitions incorporate laboratory, clinical and epidemiological elements as appropriate.

The following case definitions have been reviewed by CDWG and endorsed by CDNA.

These case definitions were implemented on 1 July 2015 and supersede any previous versions.

Hepatitis B – newly acquired

Reporting

Only confirmed cases should be notified.

Confirmed case

A confirmed case requires laboratory definitive evidence only.

Laboratory definitive evidence

Detection of hepatitis B surface antigen (HBsAg) in a patient shown to be negative within the last 24 months

OR

Detection of HBsAg and IgM to hepatitis B core antigen, except where there is prior evidence of hepatitis B infection

OR

Detection of hepatitis B virus by nucleic acid testing, and IgM to hepatitis B core antigen, except where there is prior evidence of hepatitis B infection

Note:

Transient HBsAg positivity can occur in patients following HBV vaccination. This occurs more commonly in dialysis patients and is unlikely to persist beyond 14 days post-vaccination.

Hepatitis B – newly acquired	<p>Laboratory definitive evidence</p> <p>For clarity, remove “in the absence of prior evidence of hepatitis B infection” and insert “except where there is prior evidence of hepatitis B infection”.</p> <p>Note</p> <p>To caution about the influence of recent vaccination, add note: “Transient HBsAg positivity can occur in patients following HBV vaccination. This occurs more commonly in dialysis patients and is unlikely to persist beyond 14 days post-vaccination”</p>
-------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Hepatitis B – unspecified

Reporting

Only confirmed cases should be notified.

Confirmed case

A confirmed case requires laboratory definitive evidence AND that the case does not meet any of the criteria for a newly acquired case.

Laboratory definitive evidence

Detection of hepatitis B surface antigen (HBsAg), or hepatitis B virus by nucleic acid testing, except where there is prior evidence of hepatitis B infection.

Note:

Transient HBsAg positivity can occur in patients following HBV vaccination. This occurs more commonly in dialysis patients and is unlikely to persist beyond 14 days post-vaccination.

Hepatitis B – unspecified

Laboratory definitive evidence

For clarity, remove “in the absence of prior evidence of hepatitis B infection” and insert “except where there is prior evidence of hepatitis B infection”.

Note

To caution about the influence of recent vaccination, add note:

“Transient HBsAg positivity can occur in patients following HBV vaccination. This occurs more commonly in dialysis patients and is unlikely to persist beyond 14 days post-vaccination”

Hepatitis E

Reporting

Only confirmed cases should be notified.

Confirmed case

A confirmed case requires laboratory definitive evidence

OR

Laboratory suggestive evidence AND clinical evidence

Laboratory definitive evidence

Detection of hepatitis E virus by nucleic acid testing

OR

Detection of hepatitis E virus in faeces by electron microscopy

OR

IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre to hepatitis E virus

Laboratory suggestive evidence

Detection of IgM or IgG to hepatitis E virus.

Clinical evidence

A clinically compatible illness without other apparent cause.

Hepatitis E

Confirmed case

Remove requirement for epidemiological evidence so that a positive IgM or IgG in combination with clinical evidence can constitute a confirmed case

Remove **Epidemiological evidence** section

Syphilis – congenital

Reporting

Both confirmed cases and probable cases should be notified, including syphilis-related stillbirth¹

Confirmed case

A confirmed case requires laboratory definitive evidence.

Laboratory definitive evidence

Mother and child both seropositive by a treponemal specific test²

AND

One or more of the following:

Direct demonstration of *Treponema pallidum* by any of the following: nucleic acid amplification (NAA) test, dark field microscopy, fluorescent antibody or silver stain - in specimens from lesions, nasal discharge, placenta, umbilical cord, cerebrospinal fluid (CSF), amniotic fluid or autopsy material

OR

Detection of *Treponema pallidum* specific IgM in the child

OR

The child's serum non-treponemal³ serology titre at birth is at least fourfold greater than the mother's titre.

Probable case

A probable case requires laboratory suggestive evidence AND clinical evidence.

Laboratory suggestive evidence

Direct demonstration of *Treponema pallidum* as described under laboratory definitive evidence (above), but without serological confirmation in the child.

OR

Child seropositive on non-treponemal testing in the absence of IgM testing

OR

A reactive CSF non-treponemal test (VDRL or RPR) in a child.

OR

A child who remains seropositive by a treponemal specific test at 15 months of age, which is confirmed either by another, different reactive treponemal specific test or a reactive non-treponemal test, in the absence of post-natal exposure to *Treponema pallidum*, including the non-venereal subspecies *Treponema pallidum* subsp. pertenue (Yaws) or subsp. endemicum (Bejel, endemic syphilis).

Clinical evidence

1. Any evidence of congenital syphilis on physical examination

OR

2. Any evidence of congenital syphilis on radiographs of long bones

OR

3. An elevated CSF cell count or protein (without other cause)

OR

4. The mother is seropositive in the perinatal period AND has no documented evidence of adequate treatment.⁴

Notes:

1. A stillbirth where the foetal death has occurred after a 20 week gestation or in a foetus which weighs greater than 500 g should be counted as clinical evidence towards a case where laboratory suggestive or definitive evidence exists.
2. Treponemal-specific tests are:

Treponema pallidum immunoassays, *Treponema pallidum* haemagglutination assay (TPHA), *Treponema pallidum* particle agglutination assay (TPPA), Fluorescent Treponemal Antibody Absorption (FTA-Abs) and various IgM assays including 19S-IgM antibody test, or IgM immunoassay.

IgM assays should not be used for screening purposes.

Treponema pallidum-specific rapid immunochromatography (ICT) assays for use as point-of-care tests are now becoming available, but their performance has not yet been fully established. Positive ICT results should be confirmed with a second treponemal specific assay.

3. Non-treponemal tests are the agglutination assays Rapid Plasma Reagin (RPR) and Venereal

Disease Research Laboratory (VDRL). Any positive sera should be tested by serial dilution to provide an end-titre. Non-treponemal tests may be used to monitor efficacy of treatment. Mother and child sera should be collected contemporaneously and tested in parallel and cord blood should not be used for the investigation of congenital syphilis.

4. Treatment is considered adequate if

- a stage-appropriate penicillin-containing regimen was used 30 days or more prior to delivery AND
- all antenatal and delivery pathology investigations were performed and results verified AND

- there is no evidence of reinfection.

4.1 Treatment with macrolides alone during pregnancy in penicillin-allergic women is no longer regarded as adequate therapy as resistance to macrolides in *T. pallidum* is increasingly common and may arise during therapy.

4.2 Although the risk of congenital syphilis is much higher in early-stage disease, in the presence of untreated syphilis the birth of an unaffected child does not guarantee that subsequent children will not be affected.

Syphilis – congenital	<p>Reporting</p> <p>Inclusion of a syphilis-related stillbirth where this was previously a note for the 'Laboratory definitive evidence' section.</p> <p>Laboratory definitive evidence</p> <p>Inclusion of detection of <i>Treponema pallidum</i> specific IgM in the child.</p> <p>Inclusion of a nucleic acid amplification (NAA) test as a means of direct demonstration of <i>Treponema pallidum</i>.</p> <p>Notes</p> <p>Removal of the serological criterion for proof of treatment in point 4. This is also reflected in the last sentence of the 'Clinical evidence' section.</p>
------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Infectious syphilis – less than two years duration (includes primary, secondary and early latent)

Reporting

Confirmed and probable cases should be notified.

Confirmed case

A confirmed case requires either:

1. Laboratory definitive evidence

OR

2. Laboratory suggestive evidence **AND** clinical evidence.

Laboratory definitive evidence

1. Seroconversion in past two years: treponemal specific test^a reactive when previous treponemal specific test non-reactive within past two years and the latest result is confirmed by either a reactive non-treponemal test^b or a different reactive treponemal specific test

OR

2. A fourfold or greater rise in non-treponemal antibody titre compared with the titre within past two years, and a reactive treponemal specific test

Laboratory suggestive evidence

1. Demonstration of *Treponema pallidum* by darkfield microscopy (not oral lesions), direct fluorescent antibody microscopy (direct antigen test), equivalent microscopic methods (e.g. silver stains), or DNA methods (e.g. nucleic acid testing)

OR

2. A reactive treponemal specific test confirmed by either a reactive non-treponemal test or a different reactive treponemal specific test

OR

3. A reactive non-treponemal test confirmed by a treponemal specific test.

Clinical evidence

1. Presence of a primary chancre (or ulcer)

OR

2. Clinical signs of secondary syphilis.

Probable case

A probable case requires that the case does not meet the criteria for a confirmed case AND

Either:

- a. In a person with no known previous reactive serology: no history of adequate treatment of syphilis, or endemic treponemal disease, and

1. Contact with an infectious case **AND** laboratory suggestive evidence.

OR

2. Laboratory suggestive evidence **AND** RPR ≥ 16 .

OR

3. Positive syphilis IgM **AND** laboratory suggestive evidence.

OR

- b. In a person with previous reactive serology: a fourfold or greater rise in non-treponemal antibody titre when the previous serology was done more than two years ago.

AND

1. Contact with an infectious case, or

OR

2. Positive syphilis IgM

Notes:

- a. Treponemal specific tests are: IgG immunoassay, *Treponema pallidum* haemagglutination assay, *Treponema pallidum* particle agglutination assay, Fluorescent Treponemal Antibody Absorption, 19S-IgM antibody test, or IgM immunoassay

- b. Non-treponemal tests are; Rapid Plasma Reagin (RPR), Venereal Disease Research Laboratory (VDRL)

Infectious syphilis – less than two years duration (includes primary, secondary and early latent)	<p>Change name from 'Syphilis – less than 2 years duration (infectious - primary, secondary and early latent)' to 'Infectious Syphilis – less than two years duration (includes primary, secondary and early latent)</p> <p>Include new case definition for infectious syphilis, probable case.</p> <p>Reporting</p> <p>Both confirmed and probable cases should be notified.</p> <p>Laboratory definitive evidence</p> <p>Move details regarding treponemal tests to notes section.</p>
----------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------