Surveillance Case Definitions for Notifiable Infectious Diseases and Related Conditions in Western Australia

Communicable Disease Control Directorate

February 2022
## Revision history

<table>
<thead>
<tr>
<th>Version</th>
<th>Changes</th>
<th>Date</th>
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<tbody>
<tr>
<td>February 2022</td>
<td>The following changes were made to reflect recent updates to the Australian national notifiable diseases case definitions:</td>
<td>22 February 2022</td>
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<tr>
<td></td>
<td>Chapter 38 Influenza case definition</td>
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<td></td>
<td>• In Laboratory definitive evidence, removal of point 5. ‘Single high titre by CFT or HAI to influenza virus’ from the list of Laboratory definitive evidence.</td>
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<td></td>
<td>Chapter 44 Leptospirosis case definition</td>
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<td>• Inclusion of a probable category for cases with laboratory suggestive evidence.</td>
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<td>Chapter 53 Mumps case definition</td>
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<td></td>
<td>• Inclusion of a probable case definition</td>
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<td></td>
<td>• Additional detail to laboratory definitive evidence point 3 criterion and inclusion of a footnote to allow recently vaccinated cases to potentially be considered as confirmed cases.</td>
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<tr>
<td></td>
<td>• Laboratory suggestive evidence moved and adjusted to form part of the probable case definition.</td>
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<td>• Adjustment to the clinical evidence criteria</td>
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| September 2021| The following changes were made to reflect recent updates to the Australian national notifiable diseases case definitions: | 2 September 2021   |
|               | Chapter 34 Human coronavirus with pandemic potential (COVID-19)         |                    |
|               | • Link to Coronavirus Disease 2019 CDNA Series of National Guidelines (SoNG) added |                    |
|               | Chapter 39 Invasive Group A Streptococcal (iGAS) Disease               |                    |
|               | • Addition of Invasive Group A Streptococcal (iGAS) Disease case definition |                    |
|               | Chapter 64 Respiratory Syncytial Virus (RSV) laboratory-confirmed       |                    |
|               | • Addition of Respiratory Syncytial Virus (RSV) laboratory-confirmed case definition |                    |

<table>
<thead>
<tr>
<th>January 2019</th>
<th>The following changes were made to reflect recent updates to the Australian national notifiable diseases case definitions:</th>
<th>7 January 2019</th>
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<tbody>
<tr>
<td></td>
<td>Chapter 71 Smallpox case definition</td>
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<tr>
<td></td>
<td>• Removal of ‘credible’ and addition of ‘syndrome consistent with’.</td>
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<td>• Addition of a footnote under clinical evidence.</td>
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<td></td>
<td>• Additional detail to epidemiological links.</td>
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<td></td>
<td>• Link to Smallpox CDNA Series of National Guidelines (SoNG) added</td>
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<td></td>
<td>Chapter 23 Gonococcal infection</td>
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<td></td>
<td>• Link to Gonococcal infection CDNA Series of National Guidelines (SoNG) added</td>
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<td></td>
<td>Chapter 60 Q Fever</td>
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<tr>
<td></td>
<td>• Link to Q Fever CDNA Series of National Guidelines (SoNG) added</td>
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</table>
### July 2019
The following changes were made to reflect recent updates to the Australian national notifiable diseases case definitions:

**Chapter 23 Gonococcal infection case definition**

“Detection of typical Gram-negative intracellular diplococci in a smear from a genital tract specimen” removed as a source of laboratory definitive evidence

Implemented by the Communicable Diseases Network of Australia (CDNA) on 1 January 2019.

**Chapter 46 Measles case definition**

- Additional detail to laboratory definitive evidence point 4 criterion and inclusion of a footnote to allow recently vaccinated cases to potentially be considered as confirmed cases
- IgM antibody detection adjusted and moved from laboratory definitive evidence to laboratory suggestive evidence
- Additional detail to epidemiological evidence including contact for infectious period changed from five days before rash onset to 24 hours before onset of prodromal symptoms or four days before rash onset

Implemented by the CDNA on 1 July 2019

**Chapter 66 Rubella (non-congenital) case definition**

- Additional detail to laboratory definitive evidence point 3 criterion and inclusion of a footnote to allow recently vaccinated cases to potentially be considered as confirmed cases
- IgM antibody detection adjusted and moved from laboratory definitive evidence to laboratory suggestive evidence
- Rephrasing of the probable case definition evidence requirements with no change to the actual evidence required

Implemented by the CDNA on 1 July 2019

### November 2018

**Chapter 54 Pertussis case definition**

The following WA note was removed from the pertussis case definition as laboratories in WA were no longer performing mucosal IgA testing for pertussis:

**WA Note**

*If a patient has been diagnosed by mucosal IgA only, then clinical evidence that includes paroxysms of coughing, inspiratory whoop, or post-tussive vomiting does not need to be considered.*

21 May 2019

**Chapter 55 Rubella (congenital) case definition**

The Surveillance Case Definitions Manual was reviewed and updated to be consistent with current Western Australian and Australian case definitions for notifiable communicable diseases.

21 November 2018
**Introduction**

This document contains surveillance case definitions for all nationally notifiable infectious diseases, as endorsed by the Communicable Diseases Network Australia (CDNA), as well as for eleven infectious diseases or related conditions that are notifiable in Western Australia but not nationally. These latter diseases or conditions include: acute rheumatic fever/rheumatic heart disease, acute post-streptococcal glomerulonephritis (APSGN), amoebic meningoencephalitis, chancroid, carbapenem-resistant Enterobacteriaceae (CRE), melioidosis, Hendra virus infection, methicillin-resistant *staphylococcus aureus* (MRSA) infection, typhus/rickettsial infection, *Vibrio parahaemolyticus* infection, vancomycin-resistant enterococci (VRE) and *Yersinia* infection.

Several of the nationally notifiable diseases include WA-specific explanatory notes to facilitate case classification (eg. Barmah Forest virus infection, chlamydial infection, gonococcal infection, legionellosis and Ross River virus infection).

The national case definitions are reviewed or developed for various reasons, for example, to reflect new diagnostic tests or to recognise emerging infections. The most current version of the national notifiable disease case definitions can be found at: [http://www.health.gov.au/casedefinitions](http://www.health.gov.au/casedefinitions).
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1. **Acute post-streptococcal glomerulonephritis (APSGN) (Not nationally notifiable)** (last updated 2018)

**Reporting**

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

All suspected cases of APSGN including **possible cases** must be simultaneously notified to the regional Paediatric Team AND local Public Health Unit Disease Control Team.

**Confirmed case**

A confirmed case requires both **clinical evidence** AND **laboratory evidence**.

**Probable case**

A probable case requires **clinical evidence** only.

**Possible case**

A possible case requires **laboratory evidence** only.

**Clinical evidence**

At least 2 of the following:

- Facial oedema and/or peripheral oedema
- Hypertension
- ≥ moderate haematuria on dipstick (≥2+ red blood cells)

**Laboratory evidence**

1. Haematuria on microscopy (RBC >10/μl) (if microscopy is not available, then 'moderate' haematuria on dipstick fulfils this criterion)  
   **AND**
2. Evidence of recent streptococcal infection (positive Group A Streptococcal culture from skin or throat, or elevated ASO titre or Anti-DNase B)  
   **AND**
3. Reduced C3 complement level

**Notes:**

1. Possible (subclinical) cases can be detected when screening contacts of a case of APSGN. Subclinical cases have only one clinical symptom. They do not have oedema or hypertension but, on laboratory investigation, are found to have haematuria, evidence of a streptococcal infection and a reduced C3. These cases should be reported to the Regional Paediatrician and the local Public Health Unit Disease Control Team.
2. If microscopy is not available, then moderate haematuria on dipstick fulfils this criterion.
3. If all other criteria have been fulfilled but the only evidence of recent streptococcal infection is isolation of Group C or Group G Streptococci from skin or throat, this could be considered a confirmed case after discussion between the local Population Health Unit Disease Control Team and the treating paediatrician.

4. All suspected cases of APSGN must be simultaneously notified to the regional Paediatric team AND local Population Health Unit Disease Control Team. Confirmed cases of APSGN are notifiable in Western Australia under the statutory requirements of the WA Public Health Act 2016. Any questions or concerns regarding diagnosis or immediate management of APSGN, contact the Regional Paediatrician. You must also notify the local Population Health Unit Disease Control Team.

A. Hypertension in children includes a systolic reading above the 95th percentile specific to the age and gender of the child. See below:

Table: 95th Centile Systolic Blood Pressure Levels by Age*

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>103</td>
<td>104</td>
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<tr>
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<td>17</td>
<td>136</td>
<td>129</td>
</tr>
</tbody>
</table>

2. **Acute rheumatic fever and rheumatic heart disease (Not nationally notifiable)**

(last updated: 2018)

**Reporting**

Notify any suspected cases of Acute Rheumatic Fever (ARF) and Rheumatic Heart Disease (RHD) directly to the Western Australia Rheumatic Heart Disease (WA RHD) Register and Control Program. Non-WA Health service providers should submit notifications by fax to 6553 0899. For health service providers within WA Health, notifications can be submitted by fax or emailed to RHDRegister@health.wa.gov.au.

**Case Definitions**

For ARF and RHD case definitions please refer to “The Australian guideline for prevention, diagnosis and management of acute rheumatic fever and rheumatic heart disease” ([https://www.rhdaustralia.org.au/arf-rhd-guideline](https://www.rhdaustralia.org.au/arf-rhd-guideline)) or contact the WA RHD Register and Control Program.

**Note:**

ARF and RHD notifications are recorded on the WA RHD Register, and are not included on WANIDD.

**Contact details**

**Western Australian RHD Register and Control Program**

Phone: 1300 622 745
Fax: 6553 0899
Email: RHDRegister@health.wa.gov.au

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**

3. **Amoebic meningoencephalitis** *(Not nationally notifiable)*

(last updated 2018)

**Reporting**

Only confirmed cases should be notified.

**Confirmed case**

Demonstration of Naegleria, Acanthamoeba species or any other free living amoeba including Balamuthia mandrillaris in cerebrospinal fluid (CSF) or tissues.

Specimens should be referred to a reference laboratory for confirmation.
4. **Anthrax**

Reporting

Only confirmed 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**

Isolation of *Bacillus anthracis*-like organisms or spores confirmed by a reference laboratory.

**Laboratory suggestive evidence**

1. Detection of *Bacillus anthracis* by microscopic examination of stained smears
   - OR
2. Detection of *Bacillus anthracis* by nucleic acid testing.

**Clinical evidence**

1. *Cutaneous*: skin lesion evolving over 1-6 days from a papular through a vesicular stage, to a depressed black eschar invariably accompanied by oedema that may be mild to extensive
   - OR
2. *Gastrointestinal*: abdominal distress characterised by nausea, vomiting, anorexia and followed by fever
   - OR
3. Rapid onset of hypoxia, dyspnoea and high temperature, with radiological evidence of mediastinal widening
   - OR
4. *Meningeal*: acute onset of high fever, convulsions, loss of consciousness and meningeal signs and symptoms.
5. **Australian bat lyssavirus infection**

(last updated: 2004)

**Reporting**

Only confirmed cases should be notified.

**Confirmed case**

A confirmed case requires laboratory definitive evidence only.

**Laboratory definitive evidence**

1. Isolation of Australian bat lyssavirus confirmed by sequence analysis
   OR

2. Detection of Australian bat lyssavirus by nucleic acid testing.

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)

The CDNA Guidelines for Rabies Virus and Other Lyssavirus (including Bat Lyssavirus) are available on the CDNA website:  
6. **Avian influenza in humans (AIH)**

(last updated: 1 July 2015)

**Reporting**
Both **confirmed cases** and **probable cases** should be notified. Suspected cases should not be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** AND **clinical evidence**.

**Laboratory definitive evidence**
1. Isolation of an avian influenza (AI) virus
2. Detection of AI by nucleic acid testing using two different targets, e.g. primers specific for influenza A and AI haemagglutinin (genetic sequencing should be employed to confirm diagnosis);
3. A fourfold or greater rise in antibody titre to the AI virus detected in the outbreak (or AI virus suspected of causing the human infection), based on testing of an acute serum specimen (collected 7 days or less after symptom onset) and a convalescent serum specimen. The convalescent neutralizing antibody titre must also be 80 or higher.
4. An antibody titre to the AI virus detected in the outbreak (or AI virus suspected of causing the human infection) of 80 or greater in a single serum specimen collected at day 14 or later after symptom onset. The result should be confirmed in at least two different serological assays (i.e. haemagglutinin-inhibition, microneutralisation, positive Western blot, etc).

Note: Tests must be conducted in a national, regional or international influenza laboratory whose Avian Influenza in Humans (AIH) test results are accepted by WHO as confirmatory.

**Clinical evidence**
An acute illness characterised by:

1. Fever (>38°C) or history of fever AND one or more of; cough OR rhinorrhoea OR myalgia OR headache OR dyspnoea OR diarrhoea;
2. Conjunctivitis
3. Infiltrates or evidence of an acute pneumonia on a chest radiograph plus evidence of acute respiratory insufficiency (hypoxaemia, severe tachypnoea).

**Probable case**
A probable case requires **laboratory suggestive evidence** AND **clinical evidence** AND **epidemiological evidence**.

**Laboratory suggestive evidence**
Confirmation of an influenza A infection but insufficient laboratory evidence for AIH infection.

Clinical evidence
As with confirmed case.

Epidemiological evidence
One or more of the following exposures in the 10 days prior to symptom onset:
1. Close contact (within 1 metre) with a person (e.g. caring for, speaking with, or touching) who is a probable, or confirmed AIH case;
2. Exposure (e.g. handling, slaughtering, defeathering, butchering, preparation for consumption) to poultry or wild birds or their remains or to environments contaminated by their faeces in an area where AI infections in animals or humans have been suspected or confirmed in the last month;
3. Consumption of raw or undercooked poultry products in an area where AI infections in animals or humans have been suspected or confirmed in the last month;
4. Close contact with a confirmed AI infected animal other than poultry or wild birds (e.g. cat or pig);
5. Handling samples (animal or human) suspected of containing AI virus in a laboratory or other setting.

Suspected case
A suspected case requires clinical evidence AND epidemiological evidence.

Clinical evidence for suspected case
As with confirmed case.

Epidemiological evidence
As with probable case.

Note: For overseas exposures, an AI-affected area is defined as a region within a country with confirmed outbreaks of AI strains in birds or detected in humans in the last month (seek advice from the National Incident Room when in doubt). With respect to the H5N1 AI outbreak that commenced in Asia in 2003, information regarding H5-affected countries is available at: http://gamapserver.who.int/mapLibrary/. With respect to the H7N9 outbreak that commenced in eastern China in 2013, information regarding H7-affected countries is available at: http://www.who.int/influenza/human_animal_interface/influenza_h7n9/en/.

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)
7. **Barmah Forest virus infection**

(last updated: 1 January 2016)

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

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** only.

**Probable Case**
A probable case requires **laboratory suggestive evidence** only.

Laboratory definitive evidence
1. Isolation of Barmah Forest virus
   OR
2. Detection of Barmah Forest virus by nucleic acid testing
   OR
3. IgG seroconversion or a significant increase in IgG antibody level (e.g. fourfold or greater rise in titre) to Barmah Forest virus

Laboratory suggestive evidence
Detection of Barmah Forest virus IgM AND Barmah Forest virus IgG EXCEPT if Barmah Forest IgG is known to have been detected in a specimen collected greater than 3 months earlier.

WA Note
*If Barmah Forest virus-specific IgM AND Ross River virus-specific IgM are both detected in a specimen, then to meet the case definition for Barmah Forest virus infection, Barmah Forest IgG must also be detected.*
8. Botulism

Reporting
Only confirmed cases should be notified.

Confirmed case
A confirmed case requires laboratory definitive evidence AND clinical evidence.

Laboratory definitive evidence
1. Isolation of *Clostridium botulinum*
2. Detection of *Clostridium botulinum* toxin in blood or faeces.

Clinical evidence
A clinically compatible illness (eg. diplopia, blurred vision, muscle weakness, paralysis, death).
9. **Brucellosis**

(last updated: 1 July 2016)

Reporting
Both **confirmed cases** **AND** **probable cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** only.

**Laboratory definitive evidence**
1. Isolation of *Brucella* species **OR**
2. Detection of *Brucella* species by nucleic acid testing from a blood sample **OR**
3. IgG seroconversion or a significant increase in IgG antibody level (e.g. fourfold or greater rise) to *Brucella*.

**Probable case**
A probable case requires laboratory **suggestive evidence** **AND** **clinical evidence**.

**Laboratory suggestive evidence**
1. A single high agglutination titre to *Brucella*. **OR**
2. Detection of *Brucella* species by nucleic acid testing from a normally sterile site other than blood.

**Clinical evidence**
A clinically compatible illness.
10. **Campylobacteriosis**

(last updated: 2004)

Reporting
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** only.

**Laboratory definitive evidence**
Isolation or detection of *Campylobacter* species.
11. **Carbapenem-resistant Enterobacteriaceae (CRE) (Not nationally notifiable)**

(last updated: 2017)

**Reporting**

Only confirmed cases identified from clinical and screening specimens, i.e. infection and colonisation, will be notified.

**Confirmed case**

A confirmed case requires laboratory definitive evidence.

Laboratory definitive evidence

Isolation of *Enterobacteriaceae* with carbapenem resistance from any site

OR

Molecular confirmation of carbapenemase enzyme production.

Notes:

Notification of CRE cases to the Communicable Disease Control Directorate (CDCD) and Public Health Units is not required by healthcare providers and laboratory personnel.

Private and public laboratories that identify CRE cases are required to notify patient details to the Microbiology Department, PathWest Laboratory Medicine Western Australia (LMWA) Gram-negative Reference Laboratory at QEII Medical Centre, Nedlands.

At the same time as notification, referring laboratories should forward the CRE isolate for molecular testing to the Gram-negative Reference Laboratory, PathWest LMWA.
12. **Chancroid (soft sore) (Not nationally notifiable)**  
(last updated: 2013)

**Reporting**  
Both **confirmed cases AND probable cases** should be notified.

**Confirmed case**  
A confirmed case requires **laboratory definitive evidence** only.

Laboratory definitive evidence  
Detection of *Haemophilus ducreyi* from a clinical specimen.

**Probable case**  
A probable case requires **clinical evidence and epidemiological evidence**.

Clinical evidence  
Clinically compatible ulcerative lesions.

Epidemiological evidence  
1. Sexual contact between two people at a time when:
   a. one of them is likely to be infectious (until an appropriate course of treatment has been completed and lesions are healed)  
   AND
   b. the other has an illness that starts within 3 to 14 (usually 3-5) days after this contact  
   AND
2. At least one case in the chain of epidemiologically linked cases (which may involve many cases) is laboratory confirmed, where syphilis, granuloma inguinale and Herpes simplex virus have been excluded through laboratory testing and clinical assessment as a cause of the ulcers.
13. **Chikungunya virus infection**

(last updated: 12 May 2010)

**Reporting**

Only **confirmed cases** should be notified.

**Confirmed case**

A confirmed case requires **laboratory definitive evidence** only.

**Laboratory definitive evidence**

1. Isolation of chikungunya virus  
   *OR*
2. Detection of chikungunya virus by nucleic acid testing  
   *OR*
3. Seroconversion or a significant rise in antibody level or a fourfold or greater rise in titre to chikungunya virus, in the absence of a corresponding change in antibody levels to Ross River virus and Barmah Forest virus  
   *OR*
4. Detection of chikungunya virus-specific IgM, in the absence of IgM to Ross River virus and Barmah Forest virus.

Confirmation of laboratory results by a second arbovirus reference laboratory is required in the absence of travel history to areas with known endemic or epidemic activity.
14.  **Chlamydial infection (excluding eye infections)**

(last updated: 1 July 2013)

**Reporting**
Only confirmed cases should be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence only.

**Laboratory definitive evidence**
1. Isolation of *Chlamydia trachomatis*
   OR  
2. Detection of *Chlamydia trachomatis* by nucleic acid testing  
   OR  
3. Detection of *Chlamydia trachomatis* antigen.

**WA Notes**
1. Only sexually acquired chlamydia infections should be reported (ie. those identified from urine, urethral, endocervical, anorectal and pharyngeal specimens). Ocular or perinatal infections should not be reported.
2. **Lymphogranuloma venereum (LGV)** (*Chlamydia trachomatis* serovars L1, L2 or L3) is notified as chlamydial infection, and differentiated in the serogroup/type field of WANIDD.
15. **Cholera**

Reporting
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** only.

**Laboratory definitive evidence**
Isolation of toxigenic *Vibrio cholerae* O1 or O139.

i.e. Isolation of *V. cholerae* that is serotype O1 or O139 AND toxin-positive
16. Creutzfeldt-Jakob disease (CJD)  
(last updated: 16 December 2009)

Reporting
Both confirmed cases and probable cases should be notified. This includes sporadic, accidental and familial cases (NB: a “confirmed” case is equivalent to the ANCJDR classification of “definite”).

**Confirmed case**
A confirmed case requires laboratory definitive evidence only.

Laboratory definitive evidence
Neuropathological confirmation of CJD supplemented by immunochemical detection of protease-resistant PrP by western blot OR immunocytochemistry.

**Probable case**
A probable case requires clinical evidence AND either electroencephalogram (EEG) OR laboratory suggestive evidence.

Laboratory suggestive evidence
Positive 14-3-3 protein CSF test.

Clinical evidence
1. Progressive dementia of less than two years duration AND
2. At least 2 of the following clinical features:
   - myoclonus
   - visual or cerebellar signs
   - pyramidal/extrapyramidal signs
   - akinetic mutism.
17. **Creutzfeldt-Jakob disease – variant (vCJD)**

(last updated: 16 December 2009)

Both **confirmed cases** and **probable cases** should be notified. (NB: a “confirmed” case is equivalent to the ANCJDR classification of “definite”)

**Confirmed case**
A confirmed case requires **laboratory definitive evidence AND clinical evidence**.

**Laboratory definitive evidence**
Neuropathological confirmation of vCJD.

**Clinical evidence**
Progressive neuropsychiatric disorder.

**Probable case**
A probable case requires **clinical definitive evidence OR clinical suggestive evidence AND laboratory suggestive evidence**.

**Clinical definitive evidence**
1. Progressive neuro-psychiatric disorder AND duration of illness greater than six months AND routine investigations do not suggest an alternative diagnosis AND no history of potential iatrogenic exposure AND no evidence of a familial form of TSE AND
2. Four of the following symptoms:
   a. Early psychiatric symptoms
   b. Persistent painful sensory symptoms
   c. Ataxia
   d. Myoclonus or chorea or dystonia
   e. Dementia
   AND
3. Bilateral pulvinar high signals on magnetic resonance imaging (MRI) scans AND
4. Electroencephalogram (EEG) which does not exhibit the typical appearance of classic CJD.

**Clinical suggestive evidence**
1. Progressive neuro-psychiatric disorder AND duration of illness greater than six months AND routine investigations do not suggest an alternative diagnosis AND no history of potential iatrogenic exposure AND no evidence of a familial form of TSE.

**Laboratory suggestive evidence**
1. A PrPSC positive tonsil biopsy.
18. **Cryptosporidiosis**

(last updated: 2004)

Reporting
Only confirmed cases should be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence only.

**Laboratory definitive evidence**
Detection of *Cryptosporidium* species.
19. **Dengue virus infection**

(last updated: 1 January 2017)

Reporting
Both confirmed cases and probable cases should be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence AND clinical evidence.

Laboratory definitive evidence
1. Isolation of dengue virus
   OR
2. Detection of dengue virus by nucleic acid testing
   OR
3. Detection of dengue non-structural protein 1 (NS1) antigen in blood by EIA
   OR
4. 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
5. Detection of dengue virus-specific IgM in cerebrospinal fluid, in the absence of IgM to Murray Valley encephalitis, West Nile/Kunjin virus, or Japanese encephalitis viruses.

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.

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

**Probable case**
A probable case requires laboratory suggestive evidence AND clinical evidence AND epidemiological evidence.

Clinical evidence AND household epidemiological evidence

Laboratory suggestive evidence
Detection of NS1 antigen in blood by a rapid antigen test†.
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 area‡ in Australia WHERE a locally-acquired or imported case has been documented with onset within a month

Household epidemiological evidence
Living in the same house§ as a locally-acquired case in a dengue-receptive area 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.

†Unless dengue NS1 antigen by EIA is negative
‡ As defined in the Dengue CDNA National Guideline for Public Health Units.
§ 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.

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)
The CDNA Guidelines for Dengue are available on the CDNA website:
20. **Diphtheria**

(last updated: 1 January 2017)

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

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** AND **clinical evidence**.

**Laboratory definitive evidence**
Isolation of toxigenic* *Corynebacterium diphtheriae* or toxigenic* *C. ulcerans* from site of clinical evidence.

**Clinical evidence – confirmed case**
1. Upper respiratory tract infection
   OR
2. Skin lesion

* as indicated by detection of toxin gene by nucleic acid testing

**Probable case**
A probable case requires:
1. **Laboratory suggestive evidence** AND **clinical evidence**
   OR
2. **Clinical evidence** AND **epidemiological evidence**.

**Laboratory suggestive evidence**
Isolation of *Corynebacterium diphtheriae* or *C. ulcerans* from a respiratory tract specimen (toxin production unknown).

**Clinical evidence-probable case**
Upper respiratory tract infection with an adherent membrane of the nose, pharynx, tonsils or larynx.

**Epidemiological evidence**
An epidemiological link is established when there is:
1. Contact between two people involving a plausible mode of transmission at a time when:
   a. one of them is likely to be infectious (usually 2 weeks or less and seldom more than 4 weeks after onset of symptoms)
   AND
   b. the other has an illness which starts within approximately 2-5 days after this contact
   AND
2. At least one case in the chain of epidemiologically linked cases (which may involve many cases) is laboratory confirmed.
21. **Donovanosis**

(last updated: 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 evidence
1. Demonstration of intracellular Donovan bodies on smears or biopsy specimens taken from a lesion
   OR
2. Detection of *Calymmatobacterium granulomatis* by nucleic acid testing of a specimen taken from a lesion.

Clinical evidence
Clinically compatible illness involving genital ulceration.

**Probable case**
A probable case requires clinical evidence AND epidemiological evidence.

Clinical evidence
As with confirmed case.

Epidemiological evidence
1. A compatible sexual risk history in a person from an endemic area
   OR
2. A compatible sexual risk history involving sexual contact with someone from an endemic area.
22. **Flavivirus infection - unspecified**

(last updated: 1 January 2016)

**Reporting**
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence AND clinical evidence.

**Laboratory definitive evidence**
1. Isolation of a flavivirus that cannot be identified in Australian reference laboratories or which is identified as one of the flaviviruses not otherwise classified
   **OR**
2. Detection of a flavivirus, by nucleic acid testing, that cannot be identified in Australian reference laboratories or which is identified as one of the flaviviruses not otherwise classified
   **OR**
3. IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre of flavivirus specific IgG that cannot be identified or which is identified as being specific for one of the flaviviruses not otherwise classified. There must be no history of recent Japanese encephalitis or yellow fever vaccination
   **OR**
4. Detection of flavivirus IgM in cerebrospinal fluid, with reactivity to more than one flavivirus antigen (Murray Valley encephalitis, West Nile/Kunjin, Japanese Encephalitis and/or dengue) or with reactivity only to one or more of the flaviviruses not otherwise classified
   **OR**
5. Detection of flavivirus IgM in the serum, with reactivity to more than one flavivirus antigen (Murray Valley encephalitis, West Nile/Kunjin, Japanese Encephalitis and/or dengue) or with reactivity only to one or more of the flaviviruses not otherwise classified. This is only accepted as laboratory evidence for encephalitic illnesses. There must be no history of recent Japanese encephalitis or yellow fever vaccination

**Clinical evidence**
1. **Non-encephalitic disease**: acute febrile illness with headache, myalgia and/or rash
   **OR**
2. **Encephalitic disease**: acute febrile meningoencephalitis characterised by one or more of the following:
   - focal neurological disease or clearly impaired level of consciousness
   - an abnormal computerised tomograph or magnetic resonance image or electrocardiograph
   - presence of pleocytosis in cerebrospinal fluid

**Notes**
1. It is recognised that some cases of human infection cannot be attributed to a single flavivirus. This may either be because the serology shows specific antibody to more than one virus, specific antibody cannot be assigned based on the tests available in
Australian reference laboratories, or a flavivirus is detected that cannot be identified.
2. Confirmation by a second arbovirus reference laboratory is required if the case cannot be attributed to known flaviviruses.
3. Occasional human infections occur due to other known flaviviruses, such as Kokobera, Alfuy, Edge Hill and Stratford viruses.
23. **Gonococcal infection**

(last updated: 1 January 2019)

**Reporting**

Only **confirmed cases** should be notified.

**Confirmed case**

A confirmed case requires **laboratory definitive evidence** only.

**Laboratory definitive evidence**

1. Isolation of *Neisseria gonorrhoeae*

   *OR*

2. Detection of *Neisseria gonorrhoeae* by nucleic acid testing

**WA note**

*All infections are notifiable regardless of site or mechanism of infection. This includes ocular and perinatal infections.*

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**

24. **Haemolytic uraemic syndrome (HUS)**

(last updated: 2004)

**Reporting**
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires **clinical evidence** only.

**Clinical evidence**
1. Acute microangiopathic anaemia on peripheral blood smear (schistocytes, burr cells or helmet cells)  
   **AND AT LEAST ONE OF THE FOLLOWING:**
2. Acute renal impairment (haematuria, proteinuria or elevated creatinine level)  
   **OR**
3. Thrombocytopenia, particularly during the first seven days of illness.

**Note**
Where STEC/VTEC is isolated in the context of HUS, it should be notified as both STEC/VTEC and HUS.
25. **Haemophilus influenzae type B (Hib) infection - invasive**

(last updated: 2014)

**Reporting**
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** only.

**Laboratory definitive evidence**
Isolation or detection of *Haemophilus influenzae* type b (Hib) from a normally sterile site where typing has been confirmed at a jurisdictional or regional reference laboratory.

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**
The CDNA Guidelines for *Haemophilus influenzae* type b infection - invasive are available on the CDNA website:
26. **Hendra virus (Not nationally notifiable)**

(updated: 9 November 2016)

**Reporting**

Only **confirmed cases** should be notified.

**Confirmed case**

A confirmed case requires **laboratory definitive evidence**

OR

**Laboratory suggestive evidence** **AND** **epidemiological evidence** **AND** **clinical evidence**.

**Laboratory definitive evidence**

Isolation of Hendra virus

OR

Detection of Hendra virus by nucleic acid testing

**Laboratory suggestive evidence**

Detection of antibody to Hendra virus by microsphere immunoassay, confirmed by specific immunofluorescent assay

OR

Detection of antibody to Hendra virus by virus neutralisation test

**Epidemiological evidence**

Exposure, within 21 days prior to onset of symptoms, to a horse with confirmed Hendra virus infection, or where heightened suspicion of Hendra virus infection exists as advised by the relevant animal health agency.

**Clinical evidence**

Clinically-compatible acute illness including influenza-like illness, pneumonia and meningitis.

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**

### 27. Hepatitis A

(last updated: 1 January 2013)

**Reporting**
Both **confirmed cases 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**
   
   OR

3. **Laboratory suggestive evidence AND epidemiological evidence**.

**Probable case**
A probable case requires **clinical evidence AND epidemiological evidence**.

**Laboratory definitive evidence**
Detection of hepatitis A virus by nucleic acid testing.

**Laboratory suggestive evidence**
Detection of hepatitis A specific IgM, in the absence of recent vaccination.

**Clinical evidence**
Child less than 5 years of age

OR

Acute illness with discrete onset of at least two of the following signs and symptoms: fever; malaise; abdominal discomfort; loss of appetite; nausea

AND

Jaundice or dark urine or abnormal liver function tests that reflect viral hepatitis.

**Epidemiological evidence**
1. Contact between two people involving a plausible mode of transmission at a time when:
   a. one of them is likely to be infectious (from two weeks before the onset of jaundice to a week after onset of jaundice)
      
      AND
   b. the other has an illness that starts within 15 to 50 (average 28 – 30) days after this contact
      
      AND

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

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)
The CDNA Guidelines for Hepatitis A are available on the CDNA website:

28.  **Hepatitis B – newly acquired**

Reporting
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** only.

**Laboratory definitive evidence**
1. Detection of hepatitis B surface antigen (HBsAg) in a patient shown to be negative within the last 24 months
   *OR*
2. Detection of HBsAg and IgM to hepatitis B core antigen, except where there is prior evidence of hepatitis B infection
   *OR*
3. 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.

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**
29. **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.

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)
30. **Hepatitis C – newly acquired**

(last updated: 1 January 2015)

**Reporting**
Only **confirmed 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. Detection of anti-hepatitis C antibody from a person who has had a negative anti-hepatitis C antibody test recorded within the past 24 months
   OR
2. Detection of hepatitis C virus by nucleic acid testing from a person who has a negative anti-hepatitis C antibody test result currently, or has had, within the past 24 months
   OR
3. Detection of anti-hepatitis C antibody from a child aged 18 to 24 months
   OR
4. Detection of hepatitis C virus by nucleic acid testing in a child aged 3 months to 24 months.

**Laboratory suggestive evidence**
Detection of anti-hepatitis C antibody, or hepatitis C virus by nucleic acid testing in a patient with no prior evidence of hepatitis C infection.

**Clinical evidence**
Clinical hepatitis within the past 24 months (where other causes of acute hepatitis have been excluded) defined as

1. Jaundice
   OR
2. Bilirubin in urine
   OR
3. Alanine transaminase (ALT) ten times the upper limit of normal.

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**
The CDNA Guidelines for Hepatitis C are available on the CDNA website:
31. **Hepatitis C – unspecified**

(last updated: 2004)

**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 **AND** is aged more than 24 months.

**Laboratory definitive evidence**
In a person with no prior evidence of hepatitis C virus infection

1. Detection of anti-hepatitis C antibody
   *OR*
2. Detection of hepatitis C virus by nucleic acid testing.

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**
The CDNA Guidelines for Hepatitis C are available on the CDNA website:
32. **Hepatitis D**

(last updated: 2004)

**Reporting**
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** only, in a person known to be hepatitis B surface antigen (HbsAg) positive.

**Laboratory definitive evidence**
1. Detection of IgM or IgG to hepatitis D virus  
   *OR*
2. Detection of hepatitis D virus on liver biopsy.
33. **Hepatitis E**

*(last updated: 1 July 2015)*

**Reporting**
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires:
1. **Laboratory definitive evidence**

   OR

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

**Laboratory definitive evidence**
1. Detection of hepatitis E virus by nucleic acid testing

   OR

2. Detection of hepatitis E virus in faeces by electron microscopy

   OR

3. 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.
34.  **Human coronavirus with pandemic potential (COVID-19)**

(last updated: 24 June 2021)

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)

35. Human immunodeficiency virus (HIV) infection – child aged < 18 months
(last updated: 2004)

Reporting
Both confirmed cases AND probable cases should be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence only.

**Laboratory definitive evidence**
Detection of HIV by at least two virologic assays (nucleic acid testing for proviral DNA; HIV p24 antigen, with neutralisation; virus isolation) on at least two separate blood samples (excluding cord blood).

**Probable case**
A probable case requires laboratory suggestive evidence only.

**Laboratory suggestive evidence**
Detection of HIV by one of the following virologic assays (nucleic acid testing for proviral DNA; HIV p24 antigen, with neutralisation; virus isolation) in one blood sample (excluding cord blood) and no subsequent negative HIV virologic or antibody tests.

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)
36. **Human immunodeficiency virus (HIV) infection – newly acquired**

(last updated: 2004)

Newly acquired HIV infection may be diagnosed in individuals aged 18 months or older at the time of blood sample collection. A diagnosis of newly acquired HIV infection excludes a diagnosis of HIV infection (unspecified).

**Reporting**
Both **confirmed cases** AND **probable cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** only.

**Laboratory definitive evidence**
1. Repeatedly reactive result on a screening test for HIV antibody followed by a positive result on a western blot AND laboratory evidence of a negative or indeterminate HIV antibody result in the 12 months prior to blood sample collection
   
   OR

2. A group IV indeterminate western blot AND detection of HIV by at least one of the following virologic assays (nucleic acid testing for proviral DNA; HIV p24 antigen, with neutralisation; virus isolation). A group IV indeterminate western blot is defined by the presence of a glycoprotein band (gp41, gp120 or gp160) and one or two other HIV specific bands.

**Probable case**
A probable case requires **laboratory suggestive evidence AND clinical evidence**.

**Laboratory suggestive evidence**
1. Detection of HIV by at least one of the following virologic assays (nucleic acid testing for proviral DNA; HIV p24 antigen, with neutralisation; virus isolation)
   
   OR

2. Repeatedly reactive result on a screening test for HIV antibody followed by a positive result on a western blot.

**Clinical evidence**
HIV seroconversion illness within the 12 months prior to blood sample collection.

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**
37. **Human immunodeficiency virus (HIV) infection – unspecified**

(last updated: 2004)

HIV infection (unspecified) is diagnosed in individuals aged 18 months or older at the time of blood sample collection, who do not have evidence of HIV acquisition in the previous 12 months. A diagnosis of HIV infection (unspecified) excludes a diagnosis of newly acquired HIV infection.

**Reporting**
Both confirmed cases AND probable cases should be notified.

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

**Laboratory definitive evidence**
1. Repeatedly reactive result on a screening test for HIV antibody followed by a positive result on a western blot. A positive result on a western blot is defined by the presence of a glycoprotein band (gp41, gp120 or gp160) and at least three other HIV-specific bands

OR

2. Detection of HIV by at least two virologic assays (nucleic acid testing for proviral DNA; HIV p24 antigen, with neutralisation; virus isolation) performed on at least two separate blood samples.

**Probable case**
A probable case requires laboratory suggestive evidence only.

**Laboratory suggestive evidence**
Detection of HIV by at least one of the following virologic assays (nucleic acid testing for proviral DNA; HIV p24 antigen, with neutralisation; virus isolation) in one blood sample.

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**
38. Influenza

(last updated: 01 January 2022)

Reporting
Only confirmed cases should be notified.

Confirmed cases
A confirmed case requires laboratory definitive evidence only.

Laboratory definitive evidence
1. Isolation of influenza virus by culture from appropriate respiratory tract specimen OR
2. Detection of influenza virus by nucleic acid testing from appropriate respiratory tract specimen OR
3. Laboratory detection of influenza virus antigen from appropriate respiratory tract specimen* OR
4. IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre to influenza virus

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)

The CDNA Guidelines for Influenza are available on the CDNA website:

For the Avian influenza case definition see:

6. Avian influenza in humans (AIH) (page 12)
39. **Invasive Group A Streptococcal (iGAS) Disease**

(last updated: 30 June 2021)

**Reporting**
Only **confirmed cases** should be notified.

**Confirmed cases**
A confirmed case requires **laboratory definitive evidence** only.

**Laboratory definitive evidence**
1. Isolation of Group A Streptococci (*Streptococcus pyogenes*) by culture from a normally sterile site.
2. Detection of Group A Streptococci (*Streptococcus pyogenes*) by nucleic acid testing from a normally sterile site.
40. **Japanese encephalitis virus infection**

(last updated: 12 May 2010)

**Reporting**
Only confirmed cases should be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence AND clinical evidence.

**Laboratory definitive evidence**
3. Isolation of Japanese encephalitis virus
   OR
4. Detection of Japanese encephalitis virus by nucleic acid testing
   OR
3. IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre of Japanese encephalitis virus-specific IgG proven by neutralisation or another specific test, with no history of recent Japanese encephalitis vaccination
   OR
4. Detection of Japanese encephalitis virus-specific IgM in cerebrospinal fluid, in the absence of IgM to Murray Valley encephalitis, West Nile/Kunjin and dengue viruses
   OR
5. Detection of Japanese encephalitis virus-specific IgM in serum in the absence of IgM to Murray Valley encephalitis, West Nile/Kunjin and dengue viruses, with no history of recent Japanese encephalitis vaccination.

Confirmation of laboratory result by a second arbovirus reference laboratory is required if the case appears to have been acquired in mainland Australia.

**Clinical evidence**
1. *Non-encephalitic disease*: acute febrile illness with headache, myalgia and/or rash
   OR
2. *Encephalitic disease*: acute febrile meningoencephalitis characterised by one or more of the following:
   - focal neurological disease or clearly impaired level of consciousness
   - an abnormal computerised tomogram or magnetic resonance image or electroencephalogram
   - presence of pleocytosis in cerebrospinal fluid

*Asymptomatic disease*: cases detected as part of a serosurvey should not be notified.
41. **Kunjin virus (Notified nationally as ‘West Nile virus/Kunjin virus’)**

(last updated: 12 May 2010)

**Reporting**

Only **confirmed cases** should be notified.

**Confirmed case**

A confirmed case requires **laboratory definitive evidence AND clinical evidence.**

**Laboratory definitive evidence**

1. Isolation of West Nile/Kunjin virus
   
   OR

2. Detection of West Nile/Kunjin virus by nucleic acid testing
   
   OR

3. IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre to West Nile/Kunjin virus
   
   OR

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

5. Detection of West Nile/Kunjin virus-specific IgM in serum in the absence of IgM to Murray Valley encephalitis, Japanese encephalitis and dengue viruses. This is only accepted as laboratory evidence for encephalitic illnesses.

Confirmation of laboratory result by a second arbovirus reference laboratory is required if the case occurs in areas not known to have established enzootic/endemic activity or regular epidemic activity.

**Clinical evidence**

1. **Non-encephalitic disease:** acute febrile illness with headache, myalgia and/or rash
   
   OR

2. **Encephalitic disease:** acute febrile meningoencephalitis characterised by one or more of the following:
   - focal neurological disease or clearly impaired level of consciousness
   - an abnormal computerised tomogram or magnetic resonance image or electroencephalogram
   - presence of pleocytosis in cerebrospinal fluid.

*Asymptomatic disease:* cases detected as part of a serosurvey should not be notified.
42. **Legionellosis**

(last updated: 1 January 2013)

**Reporting**
Both **confirmed cases AND probable cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence AND clinical evidence.**

**Laboratory definitive evidence**
1. Isolation of *Legionella*
   **OR**
2. Detection of *Legionella* urinary antigen
   **OR**
3. Seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre to *Legionella*.

**Clinical evidence for confirmed case**
1. Fever
   **OR**
2. Cough
   **OR**
3. Pneumonia.

**Probable Case**
A **probable case** requires **laboratory suggestive evidence AND clinical evidence.**

**Laboratory suggestive evidence**
1. Single high antibody titre to *Legionella*  
   **OR**
2. Detection of *Legionella* by nucleic acid testing
   **OR**

**Clinical evidence for probable cases**
1. Fever AND cough
   **OR**
2. Pneumonia.

**WA note**
*Because of high community seroprevalence to *Legionella longbeachae* in WA, antibody titres of 512 or less will not generally be accepted as evidence for probable cases, unless there is good clinical or radiographic evidence of pneumonia.*

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)
The CDNA Guidelines for Legionellosis are available on the CDNA website:  
43. **Leprosy**

(last updated: 1 January 2013)

**Reporting**
Only confirmed cases should be notified.

**Confirmed case**
A confirmed case requires:
1. Laboratory definitive evidence
   OR
2. Laboratory suggestive evidence AND clinical evidence.

**Laboratory definitive evidence**
Detection of *Mycobacterium leprae* by nucleic acid testing from the ear lobe or other relevant specimens.

**Laboratory suggestive evidence**
1. Demonstration of characteristic acid fast bacilli in slit skin smears and biopsies prepared from the ear lobe or other relevant sites
   OR
2. Histopathological report from skin or nerve biopsy compatible with leprosy (Hansen’s disease) examined by an anatomical pathologist or specialist microbiologist experienced in leprosy diagnosis.

**Clinical evidence**
1. Compatible nerve conduction studies
   OR
2. Peripheral nerve enlargement
   OR
3. Loss of neurological function not attributable to trauma or other disease process
   OR
4. Hypopigmented or reddish skin lesions with definite loss of sensation.

**Note**
International reporting to the World Health Organization (WHO) is based on the WHO working definition: A person showing one or more of the following features, and who as yet has to complete a full course of treatment:
- hypopigmented or reddish skin lesions with definite loss of sensation
- involvement of the peripheral nerves, as demonstrated by definite thickening with loss of sensation
- skin smear positive for acid-fast bacilli definition.

The difference in surveillance case definitions should be noted when reporting to the WHO.
44. Leptospirosis

(last updated: 01 January 2022)

Reporting
Both confirmed cases and probable cases should be notified.

Confirmed case
A confirmed case requires laboratory definitive evidence only.

Laboratory definitive evidence
1. Isolation of pathogenic Leptospira species
   OR
2. A fourfold or greater rise in Leptospira agglutination titre between acute and convalescent phase sera obtained at least two weeks apart and preferably conducted at the same laboratory
   OR
3. A single Leptospira micro agglutination titre greater than or equal to 400 supported by a positive enzyme-linked immunosorbent assay IgM result.

Probable case
A probable case requires laboratory suggestive evidence.

Laboratory suggestive evidence
Detection of pathogenic Leptospira species by nucleic acid testing
45. **Listeriosis**

(last updated: 1 January 2017)

**Reporting**

Only **confirmed cases** should be notified.

Where a mother and foetus (≥20 weeks gestation)/neonate are both confirmed, both cases should be notified.

**Confirmed case**

A confirmed case requires either:

1. **laboratory definitive evidence.**

OR

2. **Clinical AND epidemiological evidence.**

**Laboratory definitive evidence**

Isolation or detection of *Listeria monocytogenes* from a site that is normally sterile, including fetal gastrointestinal contents.

**Clinical evidence**

1. A fetus/neonate where the gestational outcome is one of the following:
   a. Stillbirth
   b. Premature birth (<37 weeks gestation)
   c. Diagnosis (within the first month of life) with at least one of the following:
      - Granulomatosis infantiseptica
      - Meningitis or meningoencephalitis
      - Septicaemia
      - Congenital pneumonia
      - Lesions on skin, mucosal membranes or conjunctivae
      - Respiratory distress and fever at birth

   **AND**

   In the absence of another plausible diagnosis

OR

2. A mother has experienced at least one of the following conditions during pregnancy:
   a. Fever of unknown origin
   b. Influenza like illness
   c. Meningitis or meningoencephalitis
   d. Septicaemia
   e. Localised infections such as arthritis, endocarditis and abscesses
   f. Preterm labour/abruption

   **AND**

   In the absence of another plausible diagnosis
**Epidemiological evidence**
A maternal/fetal pair where one of either the mother or foetus/neonate is a confirmed case by laboratory definitive evidence (up to 2 weeks postpartum).

**Notes**
1. The clinical AND epidemiological evidence criteria for a confirmed case means that if the mother is a confirmed case by laboratory definitive evidence, then the foetus/neonate is also a confirmed case if they have the defined (foetus/neonate) clinical evidence, and vice versa.

2. Laboratory definitive evidence in a foetus <20 weeks gestation means the mother only is a confirmed case.

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**
The CDNA Guidelines for Listeriosis are available on the CDNA website:  
46. **Lyssavirus infection – unspecified**

(last updated: 2004)

**Reporting**
Only confirmed cases should be notified AND only where there is insufficient evidence to meet a case definition for Australian bat lyssavirus or rabies.

**Confirmed case**
A confirmed case requires laboratory definitive evidence AND clinical evidence.

**Laboratory definitive evidence**
1. Positive fluorescent antibody test result for lyssaviral antigen on fresh brain smears
   OR
2. Specific immunostaining for lyssaviral antigen on formalin fixed paraffin sections of central nervous system tissue
   OR
3. Presence of antibody to serotype 1 lyssavirus in the cerebrospinal fluid
   OR
4. Detection of lyssavirus-specific RNA (other than to ABL or rabies).

**Clinical evidence**
Acute encephalomyelitis with or without altered sensorium or focal neurological signs.

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**
47. **Malaria**

(last updated: 2004)

**Reporting**

Only **confirmed cases** should be notified.

**Confirmed case**

A confirmed case requires **laboratory definitive evidence** only.

**Laboratory evidence**

1. Detection and specific identification of malaria parasites by microscopy on blood films with confirmation of species in a laboratory with appropriate expertise
   OR
2. Detection of *Plasmodium* species by nucleic acid testing.
48. **Measles**

(last updated: 1 July 2019)

**Reporting**
Both **confirmed cases AND probable cases** should be notified.

**Confirmed case**
A confirmed case requires either:
1. **Laboratory definitive evidence**
2. **Clinical evidence AND epidemiological evidence**.

**Laboratory definitive evidence**
At least one of the following:
1. Isolation of measles virus
2. Detection of measles virus by nucleic acid testing
3. Detection of measles virus antigen
4. IgG seroconversion or a significant increase in antibody level, such as a fourfold or greater rise in titre to measles virus EXCEPT if the case has received a measles-containing vaccine eight days to eight weeks prior to convalescent specimen collection. (NOTE: paired sera must be tested in parallel).

*Where measles vaccine has been given in the three weeks prior to illness onset and wild-type virus is not detected, or unable to be detected, a case may be considered “confirmed” only if the criteria for **clinical and epidemiological** evidence can also be met, suggesting wild-type infection. Vaccine-associated measles illness (genotype A) is not notifiable, but rather should be reported as an adverse event following immunisation.*

**Clinical evidence**
An illness characterised by all of the following:
1. A generalised maculopapular rash lasting three or more days
2. Fever (at least 38°C if measured) at the time of rash onset
3. Cough OR coryza OR conjunctivitis OR Koplik spots.

**Epidemiological evidence**
An epidemiological link is established when there is:
1. Contact between two people involving a plausible mode of transmission at a time when:
   a. one of them is likely to be infectious (from 24 hours before onset of prodromal symptoms or four days before rash onset to four days after rash onset)
   b. the other has an illness that starts within seven to 18 days after this contact
2. At least one case in the chain of epidemiologically linked cases (which may involve many cases) has laboratory confirmed measles.
**Probable case**
A probable case requires *laboratory suggestive evidence AND clinical evidence*.

**Laboratory suggestive evidence**

Detection of measles specific IgM antibody; EXCEPT

a. If ruled out by more specific measles IgM serology testing at a jurisdictional public health laboratory, OR
b. If the case has received a measles-containing vaccine eight days to eight weeks before testing.

**Clinical evidence**
As with confirmed case.

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**

49. Melioidosis (Not nationally notifiable)

(last updated: 2008)

Reporting
Only confirmed cases should be notified.

Confirmed case
A confirmed case requires laboratory definitive evidence only.

Laboratory definitive evidence
1. Isolation of *Burkholderia pseudomallei* in blood culture or other specimen; 
   OR
2. Detection of *B. pseudomallei* in blood or other sterile site specimens by nucleic acid amplification test.
50. **Meningococcal disease – invasive**

(last updated: 30 September 2009)

**Reporting**
Both **confirmed cases 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. Isolation of *Neisseria meningitidis* from a normally sterile site.
   OR
2. Detection of specific meningococcal DNA sequences in a specimen from a normally sterile site by nucleic acid amplification testing.

**Laboratory suggestive evidence**
1. Detection of Gram-negative diplococci in Gram stain of specimen from a normally sterile site or from a suspicious skin lesion
   OR
2. High titre IgM or significant rise in IgM or IgG titres to outer membrane protein antigens of *N. meningitidis*

**Clinical evidence (confirmed case)**
Disease which in the opinion of the treating clinician is compatible with invasive meningococcal disease.

**Probable case**
A probable case requires **clinical evidence** only.

**Clinical evidence (probable case)**
A probable case requires:
1. The absence of evidence for other causes of clinical symptoms  
   AND EITHER
2. Clinically compatible disease including haemorrhagic rash
   OR
3. Clinically compatible disease AND close contact with a confirmed case within the previous 60 days.

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**
The CDNA Guidelines for invasive meningococcal disease are available on the CDNA website:  
51. **Middle East respiratory syndrome coronavirus (MERS CoV)**

(last updated: 1 July 2016)

**Reporting**
confirmed cases should be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence only.

**Laboratory definitive evidence**
Detection of MERS coronavirus by polymerase chain reaction (PCR) in a public health reference laboratory using the testing algorithm described in the national guideline (SoNG) and summarised below*.

**Probable case**
A probable case requires clinical evidence AND epidemiological evidence.

**Clinical evidence**
1. An acute respiratory infection with clinical, radiological, or histopathological evidence of pulmonary parenchymal disease (e.g. pneumonia or pneumonitis or Acute Respiratory Distress Syndrome).
   AND
2. No possibility of laboratory confirmation for MERS-CoV because the patient or samples are not available for testing.

**Epidemiological evidence**
Close contact with a laboratory-confirmed case.

*To consider a case as laboratory-confirmed, one of the following conditions must be met: A positive PCR result for at least two different specific targets on the MERS-CoV genome. One positive PCR result for a specific target on the MERS-CoV genome and an additional different PCR product sequenced, confirming identity to known sequences of MERS-CoV.

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**
52. **Methicillin-resistant Staphylococcus aureus (MRSA) infection**  
*(Not nationally notifiable)*  
(last updated: 2017)

**Reporting**  
Only confirmed cases of MRSA identified from clinical and screening specimens, i.e. infection and colonisation, will be notified.

**Confirmed case**  
A confirmed case requires laboratory definitive evidence only.

**Laboratory definitive evidence**  
Isolation of *Staphylococcus aureus* by culture from any site, that are resistant to methicillin (includes flucloxacillin) and carry the *mec* gene.

**Notes:**  
Notification of MRSA cases to the Communicable Disease Control Directorate (CDCD) and Public Health Units is not required by healthcare providers and laboratory personnel.

Private and public laboratories that identify MRSA cases are required to notify patient details to the Microbiology Department, PathWest Laboratory Medicine Western Australia (LMWA) Gram-positive Typing Laboratory* at Fiona Stanley Hospital.

At the same time as notification, referring laboratories should forward the positive MRSA isolate to the Gram-positive Typing Laboratory for *mecA* or *mecC* confirmation and characterisation.

* The Gram-positive Typing Laboratory PathWest LMWA works in collaboration with the Antimicrobial Resistance Infectious Diseases Research (AMR-ID) Laboratory, Murdoch University.
53. **Mumps**

(last updated: 01 January 2022)

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

**Confirmed case**
A confirmed case requires laboratory definitive evidence

**Laboratory definitive evidence**
1. Isolation of mumps virus*
   
   OR

2. Detection of mumps virus by nucleic acid testing*
   
   OR

3. IgG seroconversion or a significant increase in antibody level, such as a fourfold or greater rise in titre to mumps virus EXCEPT if the case has received a mumps-containing vaccine eight days to eight weeks prior to specimen collection. (NOTE: paired sera must be tested in parallel).

*If mumps vaccine has been given in the 25 days prior to illness onset wild-type virus must be detected to be classified as a confirmed case. Vaccine-associated mumps illness (genotype A) is not notifiable, but rather should be reported as an adverse event following immunisation

**Probable case**
A probable case requires either:
1. Laboratory suggestive evidence AND clinical evidence
   
   OR

2. Clinical evidence AND epidemiological evidence

**Laboratory suggestive evidence**
1. Detection of mumps-specific IgM serology, EXCEPT

   a. If ruled out by more specific mumps IgM serology testing at a jurisdictional public health laboratory

   OR

   b. If the case has received a mumps-containing vaccine eight days to eight weeks before specimen collection

**Clinical evidence**
A clinically compatible illness (e.g. swelling of the parotid or other salivary glands lasting at least two days, or orchitis) without other apparent cause.

**Epidemiological evidence**
An epidemiological link is established when there is:
1. Contact between two people involving a plausible mode of transmission at a time when:
   a. one of them is likely to be infectious (6-7 days before onset of overt parotitis to nine days after);
AND

b. the other has an illness that starts within approximately 12 to 25 days after this contact;
54. Murray Valley encephalitis virus infection

(last updated: 12 May 2010)

Reporting
Only confirmed cases should be notified.

Confirmed case
A confirmed case requires laboratory definitive evidence AND clinical evidence.

Laboratory definitive evidence
1. Isolation of Murray Valley encephalitis virus
2. Detection of Murray Valley encephalitis virus by nucleic acid testing
3. IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre to Murray Valley encephalitis virus
4. Detection of Murray Valley encephalitis virus-specific IgM in cerebrospinal fluid in the absence of IgM to West Nile/Kunjin, Japanese encephalitis and dengue viruses
5. Detection of Murray Valley encephalitis virus-specific IgM in serum in the absence of IgM to West Nile/Kunjin, Japanese encephalitis and dengue viruses. This is only accepted as laboratory evidence for encephalitic illnesses.

Confirmation of laboratory result by a second arbovirus reference laboratory is required if the case occurs in areas of Australia not known to have established enzootic/endemic activity or regular epidemic activity.

Clinical evidence*
1. Non-encephalitic disease: acute febrile illness with headache, myalgia and/or rash
2. Encephalitic disease: acute febrile meningoencephalitis characterised by one or more of the following:
   • focal neurological disease or clearly impaired level of consciousness
   • an abnormal computerised tomogram or magnetic resonance image or electroencephalogram
   • presence of pleocytosis in cerebrospinal fluid

*Asymptomatic disease: cases detected as part of a serosurvey should not be notified.

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)
The CDNA Guidelines for Murray Valley encephalitis virus infection are available on the CDNA website:
55. **Paratyphoid**

**Reporting**
Only confirmed cases should be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence only.

**Laboratory definitive evidence**
Isolation or detection of *Salmonella* Paratyphi A or *S. Paratyphi* B (excluding *S. Paratyphi* B biovar Java) or *S. Paratyphi* C.

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)
**56. Pertussis**

(last updated: 2018)

**Reporting**
Both confirmed cases 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**

**Probable case**
A probable case requires **clinical evidence** AND **epidemiological evidence**

**Laboratory definitive evidence**
- Isolation of *Bordetella pertussis*
- Detection of *B. pertussis* by nucleic acid testing
- Seroconversion in paired sera for *B.pertussis* using whole cell or specific *B.pertussis* antigen(s) in the absence of recent pertussis vaccination

**Laboratory suggestive evidence**
- In the absence of recent vaccination:
  - Significant change (increase or decrease) in antibody level (IgG, IgA) to *B. pertussis* whole cell or *B. pertussis* specific antigen(s)
  - Single high IgG and/or IgA titre to Pertussis Toxin (PT)
  - Single high IgA titre to Whole Cell *B.pertussis* antigen.

**Clinical evidence**
- A coughing illness lasting two or more weeks
- Paroxysms of coughing OR inspiratory whoop OR post-tussive vomiting.

**Epidemiological evidence**
An epidemiological link is established when there is:

- Contact between two people involving a plausible mode of transmission at a time when:
  - one of them is likely to be infectious (from the catarrhal stage, approximately one week before, to three weeks after onset of cough)
AND

b. the other has an illness which starts within 6 to 20 days after this contact

AND

At least one case in the chain of epidemiologically linked cases (which may involve many cases) is a confirmed case with either laboratory definitive or laboratory suggestive evidence.

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)

The CDNA Guidelines for Pertussis are available on the CDNA website:
57. **Plague**

(last updated: 2004)

**Reporting**
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence only.

**Laboratory definitive evidence**
Isolation of *Yersinia pestis.*
58. **Pneumococcal disease – invasive**

(last updated: 2004)

**Reporting**
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** only.

**Laboratory definitive evidence**
1. Isolation of *Streptococcus pneumoniae* from a normally sterile site by culture  
   OR
2. Detection of *Streptococcus pneumoniae* from a normally sterile site by nucleic acid testing.
59. **Poliomyelitis (paralytic infection)**

(last updated: 7 July 2015)

**Reporting**
Both **confirmed cases** AND **probable cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** AND **clinical evidence**.

**Laboratory definitive evidence**

*Wild poliovirus infection*
1. Isolation of wild poliovirus (confirmed in the National Enterovirus Reference Laboratory) *OR*
2. Detection of wild poliovirus by nucleic acid testing (confirmed in the National Enterovirus Reference Laboratory).

*Vaccine-associated paralytic poliomyelitis (VAPP)*
1. Isolation of Sabin-like poliovirus (confirmed in the National Enterovirus Reference Laboratory) *OR*
2. Detection of Sabin-like poliovirus by nucleic acid testing (confirmed in the National Enterovirus Reference Laboratory).

*Vaccine derived poliovirus (VDPV) infection*
1. Isolation of poliovirus (confirmed in the National Enterovirus Reference Laboratory) *OR*
2. Detection of poliovirus by nucleic acid testing (confirmed in the National Enterovirus Reference Laboratory) characterised as a vaccine derived poliovirus according to the current definition of the World Health Organisation (reported by the National Enterovirus Reference Laboratory).

**Clinical evidence**
Any child under 15 years of age with acute flaccid paralysis* (including Guillain-Barré syndrome) or any person of any age with paralytic illness if polio is suspected.

For a case to be classified as VAPP the determination must be made by the Polio Expert Panel.

**Probable case**
A probable case of poliomyelitis (paralytic infection) requires **clinical evidence** AND the case not discarded as non-polio paralytic illness by the Polio Expert Panel.

**Clinical evidence**
As with confirmed case.

*AFP syndrome is characterised by rapid onset of weakness of an individual’s extremities, often including weakness of the muscles of respiration and swallowing, progressing to maximum severity within 1-10 days. The term “flaccid” indicates the absence of spasticity or other signs of disordered central nervous system (CNS) motor tracts such as hyperflexia, clonus, or extensor plantar responses. (Excerpt from Acute onset flaccid paralysis; World Health Organization 1993; WHO/MNH/EPI/93.3. Geneva).*
60. **Poliovirus (non-paralytic) infection**

(last updated: 7 July 2015)

**Reporting**
Isolation or detection of poliovirus from clinical specimens with [laboratory definitive evidence](#) should be notified.

This case definition should be used for asymptomatic patients or patients with illness not consistent with acute flaccid paralysis.

**Laboratory definitive evidence**

**Wild poliovirus infection**
1. Isolation of wild poliovirus (confirmed in the National Enterovirus Reference Laboratory)
   OR
2. Detection of wild poliovirus by nucleic acid testing (confirmed in the National Enterovirus Reference Laboratory).

**Sabin-like poliovirus infection**
1. Isolation of Sabin-like poliovirus (confirmed in the National Enterovirus Reference Laboratory)
   OR
2. Detection of Sabin-like poliovirus by nucleic acid testing (confirmed in the National Enterovirus Reference Laboratory) except where there has been vaccination with Sabin oral polio vaccine in the six weeks\(^*\) prior to the date of specimen collection.

\(^*\)Note: This period may be longer for immunocompromised individuals.

**Vaccine derived poliovirus (VDPV) infection**
1. Isolation of poliovirus (confirmed in the National Enterovirus Reference Laboratory)
   OR
2. Detection of poliovirus by nucleic acid testing (confirmed in the National Enterovirus Reference Laboratory), characterised as a vaccine derived poliovirus according to the current definition of the World Health Organisation (reported by the National Enterovirus Reference Laboratory).
61. **Psittacosis (Ornithosis)**

(last updated: 1 July 2018)

**Reporting**
Both confirmed cases **AND** probable cases should be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence **AND** clinical evidence

**Probable case**
A probable case requires laboratory suggestive evidence **AND** clinical evidence **AND** epidemiological evidence.

**Laboratory definitive evidence**
1. A seroconversion or fourfold or greater rise in either immunoglobulin G (IgG) antibody by microimmunofluorescence (MIF) or complement fixation (CF) antibody against *Chlamydophila psittaci* - between acute and convalescent sera (collected at least two weeks later) tested in parallel.¹
   OR
2. Detection of *C. psittaci* by nucleic acid testing
   OR
3. Isolation of *C. psittaci* by culture.

**Laboratory suggestive evidence**
1. Detection of IgM or single high IgG antibody titre² to *C. psittaci* by MIF
   OR
2. A single high *C. psittaci* CF antibody titre.

**Clinical evidence**
1. Pneumonia
   OR
2. AT LEAST TWO of the following: fever, headache, myalgia, rigors, dry cough or dyspnoea.
   AND
3. Not explained by an alternative diagnosis

**Epidemiological evidence**
Direct or indirect exposure to birds or bird products, or contact with a confirmed human or animal case.

1. *C. psittaci* MIF antibody is more specific than CF antibody. However, positive serologic findings by both MIF and CF may occur as a result of infection with other *Chlamydia* species and should be interpreted with caution. This is most likely to occur with primary *Chlamydophila pneumoniae* infection from 5-15 years of age. *Chlamydia* spp. infection in those < 5 years of age may not produce a MIF or CF serological response.

2. MIF IgG antibody can persist for years whereas CF antibody diminishes over months following *Chlamydia* spp. infection.

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**
62. **Q fever**

(last updated: 2004)

**Reporting**
Only confirmed 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. Detection of *Coxiella burnetii* by nucleic acid testing
   - OR
2. Seroconversion or significant increase in antibody level to Phase II antigen in paired sera tested in parallel in absence of recent Q fever vaccination
   - OR
3. Detection of *C. burnetii* by culture (note this practice should be strongly discouraged except where appropriate facilities and training exist.)

**Laboratory suggestive evidence**
Detection of specific IgM in the absence of recent Q fever vaccination.

**Clinical evidence**
A clinically compatible disease.

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**

63. Rabies

(last updated: 2004)

Reporting
Only confirmed cases should be notified.

Confirmed case
A confirmed case requires laboratory definitive evidence only.

Laboratory definitive evidence
1. Isolation of rabies virus confirmed by sequence analysis
   OR
2. Detection of rabies virus by nucleic acid testing.

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)
The CDNA Guidelines for Rabies Virus and Other Lyssavirus (including Bat Lyssavirus) are available on the CDNA website:
64. **Respiratory Syncytial Virus (RSV) laboratory-confirmed**

(last updated: 30 June 2021)

**Reporting**
Only confirmed cases should be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence only.

**Laboratory definitive evidence**
1. Isolation of respiratory syncytial virus by cell culture
   \( OR \)
2. Detection of respiratory syncytial virus by nucleic acid testing
   \( OR \)
3. Detection of respiratory syncytial virus antigen
   \( OR \)
4. Seroconversion, or a significant increase in antibody level such as a fourfold or greater rise in titre, to respiratory syncytial virus between paired sera of immunoglobulin G (IgG) or total antibody
65. **Rheumatic heart disease (Not nationally notifiable)**

(last updated 2018)

For the **Rheumatic heart disease** case definition see:

2. *Acute Rheumatic Fever and rheumatic heart disease (page 8)*
66. **Ross River virus infection**

Reporting
Both confirmed cases and probable cases should be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence only.

**Probable case**
A probable case requires laboratory suggestive evidence only.

Laboratory definitive evidence
1. Isolation of Ross River virus
   OR
2. Detection of Ross River virus by nucleic acid testing
   OR
3. IgG seroconversion or a significant increase in IgG antibody level (e.g. fourfold or greater rise in titre) to Ross River virus

Laboratory suggestive evidence
Detection of Ross River virus IgM AND Ross River virus IgG EXCEPT if Ross River IgG is known to have been detected in a specimen collected greater than 3 months earlier.

**WA Note**
*If Ross River virus-specific IgM AND Barmah Forest virus-specific IgM are both detected in the specimen, then to meet the case definition for Ross River virus infection, Ross River IgG must also be detected.*
67. **Rotavirus infection**

(last updated: 1 July 2018)

**Reporting**
Both **confirmed cases** AND **probable cases** should be notified.

**Confirmed case**
A confirmed case requires
1. **Laboratory definitive evidence**
   **OR**
2. **Laboratory suggestive evidence** AND **epidemiological evidence**.

**Laboratory definitive evidence**
Detection of wild-type rotavirus by nucleic acid testing.

**Laboratory suggestive evidence**
1. Detection of rotavirus by antigen assay
   **OR**
2. Detection of rotavirus by nucleic acid testing that does not distinguish between wild-type and vaccine-related virus
   **OR**
3. Detection of rotavirus by electron microscopy
   **OR**
4. Isolation of rotavirus.

**Epidemiological evidence**
1. The case is 8 months of age or older
   **OR**
2. The case has not been vaccinated in the 4 weeks prior to testing.

**Probable case**
A probable case requires **laboratory suggestive evidence** only.
68. **Rubella – congenital**

(last updated: 1 January 2016)

Congenital Rubella Infection

**Reporting**
Both confirmed cases **AND** probable cases should be notified.

**Confirmed case**
1. A confirmed case requires laboratory definitive evidence (foetal)
   
   OR
   
2. Laboratory definitive evidence (infant) **AND** epidemiological evidence.

**Laboratory definitive evidence**

*Foetal*
Isolation or detection of rubella virus from an appropriate clinical sample (i.e. foetal blood or tissue, amniotic fluid, chorionic villus sample) by culture or nucleic acid testing.

*Infant*
1. Isolation or detection of rubella virus from an appropriate clinical sample in an infant, by culture or nucleic acid testing
   
   OR
   
2. Detection of rubella-specific IgM antibody in the serum of the infant

**Epidemiological evidence**
The mother has confirmed rubella infection during pregnancy (see definition for Rubella – non-congenital).

**Probable case**
A probable case requires
1. Epidemiological evidence (1st trimester infection)
   
   OR
   
2. Epidemiological evidence (2nd or 3rd trimester infection) **AND** laboratory suggestive evidence (infant)

**Laboratory suggestive evidence**

*Infant*
High/rising rubella-specific IgG level in first year of life.

Congenital Rubella Syndrome
Reporting
Both confirmed cases AND probable cases should be reported.

**Confirmed case**
A confirmed case requires laboratory definitive evidence (foetal or infant), as described above AND clinical evidence.

**Clinical evidence**
A live or stillborn infant with ANY of the following compatible defects: cataract, congenital glaucoma, congenital heart disease, hearing defect, microcephaly, pigmentary retinopathy, developmental delay, purpura, hepatosplenomegaly meningoencephalitis, radiolucent bone disease or other defect not better explained by an alternative diagnosis.

**Probable case**
A probable case requires laboratory suggestive evidence (infant) OR epidemiological evidence, as described above

AND

**Clinical evidence**

**Clinical evidence**
(as for confirmed CRS case)
69. **Rubella – non-congenital**

(last updated: 1 July 2019)

**Reporting**
Both **confirmed cases AND probable cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence only**.

**Laboratory definitive evidence**
1. Isolation of rubella virus.*
   OR
2. Detection of rubella virus by nucleic acid testing.*
   OR
3. IgG seroconversion or a significant increase in antibody level, such as a fourfold or greater rise in titre to rubella virus **EXCEPT** if the case has received a rubella-containing vaccine eight days to eight weeks prior to convalescent specimen collection. (**NOTE**: paired sera must be tested in parallel).
   OR

*Where rubella vaccine has been given in the 3 weeks prior to illness onset and wild-type virus is not detected, or unable to be detected, a case may be considered “Probable” only if the criteria for **clinical and epidemiological** evidence can also be met, suggesting wild-type infection. Vaccine-associated rubella illness (genotype 1A) is not notifiable, but rather should be reported as an adverse event following immunisation.*

**Probable case**
A probable case requires:
1. **Laboratory suggestive evidence AND clinical evidence.**
   OR
2. **Clinical evidence AND epidemiological evidence.**

**Laboratory suggestive evidence**
1. Detection of rubella-specific IgM, **EXCEPT**
   a. If ruled out by more specific rubella IgM serology testing at a jurisdictional public health laboratory.
   OR
   b. If the case has received a rubella-containing vaccine eight days to eight weeks before testing.

**Clinical evidence**
1. A generalised maculopapular rash
   **AND**
2. Fever
   **AND**
3. Arthralgia/arthritis OR lymphadenopathy OR conjunctivitis.

**Epidemiological evidence**
An epidemiological link is established when there is:
1. Contact between two people involving a plausible mode of transmission at a time when:
   a. one of them is likely to be infectious (about one week before to at least four
days after appearance of rash) AND
b. the other has an illness which starts within 14 and 23 days after this contact AND
c. At least one case in the chain of epidemiologically linked cases (which may involve many cases) is laboratory confirmed.
70. **Salmonellosis**

(last updated: 1 January 2016)

**Reporting**
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** only.

**Laboratory definitive evidence**
Isolation or detection of *Salmonella* species (excluding *serotypes captured under the case definitions for typhoid and paratyphoid*).
71. **Severe acute respiratory syndrome (SARS)**

(last updated: 2004)

**Reporting**

Only **confirmed cases** should be notified. (Note: A surveillance case definition for **probable cases** is currently in preparation)

**Confirmed case**

A confirmed case requires **laboratory definitive evidence AND clinical evidence**.

**Laboratory definitive evidence**

1. Detection of Severe Acute Respiratory Syndrome-coronavirus (SARS-CoV) by nucleic acid testing using a validated method from at least two different clinical specimens (eg nasopharyngeal and stool) OR the same clinical specimen collected on two or more occasions during the course of the illness (eg sequential nasopharyngeal aspirates) OR two different assays or repeat PCR using a new RNA extract from the original clinical sample on each occasion of testing OR

2. Seroconversion or significant increase in antibody level or fourfold or greater rise in titre to SARS-CoV tested in parallel by enzyme-linked immunosorbent assay or immunofluorescent assay OR

3. Isolation of SARS-CoV AND detection of SARS-CoV by nucleic acid testing using a validated method.

**Clinical evidence**

A person with a history of:

- Fever (≥ 38°C) AND
- One or more symptoms of lower respiratory tract illness (cough, difficulty breathing), AND
- Radiographic evidence of lung infiltrates consistent with pneumonia or Acute Respiratory Distress Syndrome (ARDS) OR autopsy findings consistent with the pathology of pneumonia or ARDS.

**Note:**

The NNDSS definition is based on that provided by the WHO for use in the inter-outbreak period. It should be recognised that the case definition provided by WHO may be modified in the event of a second global alert. Until the epidemiology of SARS has been further defined, “alert cases” (see below) should be reported to State and Territory Health Departments, and informally reported to the Australian Government Department of Health and Ageing. The aim of the “alert cases” is to provide early warning of the potential recurrence of SARS to:

- rapidly implement appropriate infection control measures
- expedite diagnosis
- activate the public health response.
Alert case
In the absence of an alternate diagnosis:
1. Two or more health care workers in the same health care unit fulfilling the clinical case definition of SARS and with onset of illness in the same 10-day period.

OR

2. Hospital acquired illness in three or more persons (health care workers and/or other hospital staff and/or patients and/or visitors) in the same health care unit fulfilling the clinical case definition of SARS and with onset of illness in the same 10-day period.
72. *Shiga toxin-producing Escherichia coli (STEC) infection*

(last updated: 1 July 2016)

**Reporting**
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** only.

**Laboratory definitive evidence**
1. Isolation of shigatoxigenic *Escherichia coli* from faeces  
   **OR**
2. Detection of the gene(s) encoding the Shiga toxins (stx1 and/or stx2) in faeces or from a clinical isolate of *Escherichia coli*.

**Note:**
Where STEC is isolated in the context of haemolytic uraemic syndrome (HUS), it should be notified as STEC and HUS.
Reporting
Both confirmed cases and probable cases should be notified.

**Confirmed case**
A confirmed case requires

1. Laboratory definitive evidence

   OR

2. Laboratory suggestive evidence AND epidemiological evidence

**Probable case**
A probable case requires Laboratory suggestive evidence

Laboratory definitive evidence
Isolation of *Shigella* species.

Laboratory suggestive evidence
Detection of *Shigella* by nucleic acid testing

Epidemiological evidence
An epidemiological link is established when there is:

1. Contact with a confirmed case involving a plausible mode of transmission;

   OR

2. An epidemiologically plausible food or other environmental exposure in common with one or more culture-positive cases.

*The ipaH gene is the target of all current nucleic acid tests for *Shigella*. However the ipaH gene is common to *Shigella* species and enteroinvasive Escherichia coli (EIEC) and thus is not considered laboratory definitive evidence for *Shigella*. 
74. **Smallpox**

(last updated: 1 July 2019)

**Reporting**
Both confirmed cases **AND** probable cases should be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence only.

**Laboratory definitive evidence**
1. Isolation of variola virus, confirmed at the Victorian Infectious Diseases Reference Laboratory
   OR
2. Detection of variola virus by nucleic acid testing, confirmed at the Victorian Infectious Diseases Reference Laboratory.

**Probable case**
A probable case requires either:
1. Clinical evidence **AND** laboratory suggestive evidence
   OR
2. Clinical evidence **AND** epidemiological evidence.

**Laboratory suggestive evidence**
1. Detection of a poxvirus resembling variola virus by electron microscopy
   OR
2. Isolation of variola virus at a non-reference laboratory
   OR
3. Detection of variola virus by nucleic acid testing at a non-reference laboratory

**Clinical evidence**
A clinical syndrome consistent with smallpox as judged by a specialist physician.

**Epidemiological evidence**
1. Within 7 to 19 days prior to illness onset the case has:
   a. An epidemiological link to a confirmed case;
      OR
   b. An epidemiological link to a case in a chain of epidemiologically linked cases where at least one case is confirmed;
      OR
   c. An identified mechanism of exposure to variola virus.

**Notes:**
1. In the absence of meeting criterion 1 of the laboratory suggestive evidence, if confirmatory testing at a reference laboratory subsequently confirms the specimen as not being variola virus, this criterion would not be considered to have been met as the laboratory suggestive evidence component of the case definition.
3. Such as an infectious diseases physician, clinical microbiologist or public health physician.

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)

75. **Syphilis – congenital**

(last updated: 1 July 2015)

**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**
1. Mother and child both seropositive by a treponemal specific test²

AND

2. 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**
1. Direct demonstration of *Treponema pallidum* as described under laboratory definitive evidence (above), but without serological confirmation in the child.

OR

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

OR

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

OR

4. 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)
4. The mother is seropositive in the perinatal period \textit{AND} has no documented evidence of adequate treatment\textsuperscript{4}

Notes:

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

2. Treponemal-specific tests are: Treponema pallidum immunoassays, \textit{Treponema pallidum} haemagglutination assay (TPHA), \textit{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
   \begin{itemize}
   \item A stage-appropriate penicillin-containing regimen was used 30 days or more prior to delivery AND
   \item All antenatal and delivery pathology investigations were performed and results verified AND
   \item There is no evidence of reinfection.
   \end{itemize}

4.1 Treatment with macrolides alone during pregnancy in penicillin-allergic women is no longer regarded as adequate therapy as resistance to macrolides in \textit{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.

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)

76. Infection Syphilis – less than 2 years duration (includes primary, secondary and early latent)

(last updated: 1 July 2015)

Reporting
Both confirmed and probable cases should be notified.

Confirmed case
A confirmed case requires either:
1. Laboratory definitive evidence
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
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)
2. A reactive treponemal specific test confirmed by either a reactive non-treponemal test or a different reactive treponemal specific test

Clinical evidence
1. Presence of a primary chancre (or ulcer)
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:

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
2. Laboratory suggestive evidence AND RPR ≥16
3. Positive syphilis IgM AND laboratory suggestive evidence.
OR

4. 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

5. Contact with an infectious case,
OR
6. Positive syphilis IgM

a. Treponemal tests are; IgG immunoassay, *Treponema pallidum* haemagglutination assay, *Treponema pallidum* particle agglutination assay, *Treponema pallidum* immobilisation 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)

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)

77. **Syphilis – more than 2 years or unspecified duration**

(last updated: 1 January 2011)

**Reporting**
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires that the case does not meet the criteria for a case of infectious syphilis less than 2 years duration AND either:

1. **Laboratory definitive evidence**
   
   OR

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

**Laboratory definitive evidence**
1. A reactive specific treponemal test (e.g. IgG enzyme immunoassay, *Treponema pallidum* haemagglutination assay, *Treponema pallidum* particle agglutination, *Treponema pallidum* immobilisation assay, or fluorescent treponemal antibody absorption) which is confirmed either by a reactive non-specific treponemal test (e.g. Venereal Diseases Research Laboratory, Rapid Plasma Reagin) OR a different specific treponemal test
   
   AND

2. a) In a person with no known previous reactive serology: no history of adequate treatment of syphilis, or endemic treponemal disease (e.g. Yaws)
   
   OR

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

**Note:** In a high prevalence area, only one reactive specific treponemal test result is necessary.

**Laboratory suggestive evidence**
Demonstration of *Treponema pallidum* by darkfield microscopy (not oral lesions), direct antigen detection tests, equivalent microscopic methods (e.g. silver stains), or DNA methods (e.g. nucleic acid testing).

**Clinical evidence**
Clinical, radiological or echocardiographic signs of tertiary syphilis.

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**
78. **Tetanus**

Reporting
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires either:
1. Laboratory definitive evidence
2. Clinical evidence.

Laboratory definitive evidence
Isolation of *Clostridium tetani* from a wound in a compatible clinical setting AND prevention of positive tetanospasim in mouse test from such an isolate using specific tetanus antitoxin.

Clinical evidence
A clinically compatible illness without other apparent cause.
79. **Tuberculosis**

(last updated: 1 January 2011)

**Reporting**
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires a diagnosis accepted by the Director of Tuberculosis Control (or equivalent) in the relevant jurisdiction, based on either:

1. **Laboratory definitive evidence**
   OR
2. **Clinical evidence**.

**Laboratory definitive evidence**
1. Isolation of *Mycobacterium tuberculosis* complex (*M. tuberculosis*, *M. bovis* or *M. africanum*, excluding *M. bovis var BCG*) by culture
   OR
2. Detection of *M. tuberculosis* complex by nucleic acid testing EXCEPT where this is likely to be due to previously treated or inactive disease.

**Clinical evidence**
A clinician experienced in tuberculosis makes a clinical diagnosis of tuberculosis, including clinical follow-up assessment to ensure a consistent clinical course.

**Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)**
80. **Tularaemia**

(last updated: 29 October 2008)

**Reporting**
Both **confirmed cases AND probable cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** only.

**Laboratory definitive evidence**
Isolation of *Francisella tularensis*.

**Probable case**
A probable case requires **laboratory suggestive evidence AND clinical evidence**.

**Laboratory suggestive evidence**
1. Isolation of a Gram-negative bacilli suggestive of *F. tularensis* where the organism identity and pathogenicity have not yet been confirmed by a reference laboratory
   **OR**
2. Detection of *F. tularensis* by nucleic acid testing
   **OR**
3. Detection of Gram negative bacilli suggestive of *F. tularensis*, confirmed by a reference laboratory
   **OR**
4. Detection of *F. tularensis* by direct immunofluorescence antigen detection testing
   **OR**
5. Detection of *F. tularensis* by immunohistochemical stains.

**Clinical evidence**
A clinically compatible illness.
81. **Typhoid fever**

(last updated: 1 January 2012)

**Reporting**
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** only.

**Laboratory definitive evidence**
Isolation or detection of *Salmonella* Typhi.

Communicable Diseases Network of Australia (CDNA) Series of National Guidelines (SoNGs)
The CDNA Guidelines for Typhoid and Paratyphoid fevers are available on the CDNA website:
82. **Typhus or rickettsial infection (Not nationally notifiable)**
(includes murine typhus, louse borne typhus, scrub typhus, Queensland tick typhus, African tick typhus and the "spotted fevers")

(last updated: 2013)

**Reporting**
Both **confirmed cases AND probable cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence**.

**Laboratory definitive evidence**
1. Detection (culture or nucleic acid testing) of *Rickettsia* species or *Orientia tsutsugamushi* in a clinical specimen
   OR
2. Seroconversion or a fourfold or greater rise in serum antibody titre to a Rickettsial or *Orientia* sp. group between acute and convalescent phase sera.

**Probable case**
A probable case requires **laboratory suggestive evidence AND clinical evidence AND epidemiological evidence**.

**Laboratory suggestive evidence**
A single elevated antibody titre to a Rickettsial or *Orientia* species group.

**Clinical evidence**
A clinically compatible illness (fever and at least one of headache, myalgia, rash or eschar).

**Epidemiological evidence**
In the month prior to onset of illness, history of travel to a region (in Australia or overseas) where the detected *Orientia* or *Rickettsia* species or group is known to occur (see Table).

**Note:**
Some laboratories report results at the species level (e.g. *Rickettsia conorii*), however, if the species is not known to occur in the place where the infection was most likely acquired (see Table), then it should be reported at the ‘group’ level (e.g. a reported *R. conorii* infection that was likely to have been acquired in WA, where it has not previously been detected, would be recorded on WANIDD as “spotted fever group”).
### Table: Classification and geographic distribution of *Orientia* and *Rickettsia* species

<table>
<thead>
<tr>
<th>Group</th>
<th>Species</th>
<th>Vector</th>
<th>Disease</th>
<th>Geographical distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scrub typhus</strong></td>
<td><em>Orientia tsutsugamushi</em></td>
<td>Mites</td>
<td>Scrub typhus</td>
<td>Northern WA, NT and QLD, overseas</td>
</tr>
<tr>
<td><strong>(1 species only)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Spotted fever group</strong></td>
<td><em>Rickettsia australis</em></td>
<td>Ticks</td>
<td>Queensland tick typhus</td>
<td>East coast of Australia</td>
</tr>
<tr>
<td><strong>(20 species – only some</strong></td>
<td><em>Rickettsia honei</em></td>
<td>Reptile ticks</td>
<td>Flinders Island spotted fever</td>
<td>Victoria, Tasmania, parts of SA, NSW, overseas</td>
</tr>
<tr>
<td><strong>shown here)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Rickettsia honei</em></td>
<td>Ticks</td>
<td>Australian spotted fever</td>
<td>Eastern States of Australia</td>
</tr>
<tr>
<td></td>
<td>subspecies marmionii</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Rickettsia afericae</em></td>
<td>Ticks</td>
<td>African Tick Bite fever</td>
<td>Overseas</td>
</tr>
<tr>
<td></td>
<td><em>Rickettsia conorii</em></td>
<td>Ticks</td>
<td>Subspecies cause different fevers, e.g. Mediterranean spotted fever, Israeli spotted fever</td>
<td>Overseas</td>
</tr>
<tr>
<td></td>
<td><em>Rickettsia rickettsii</em></td>
<td>Ticks</td>
<td>Rocky Mountain spotted fever</td>
<td>Overseas (Americas)</td>
</tr>
<tr>
<td><strong>Typhus group</strong></td>
<td><em>Rickettsia typhi</em></td>
<td>Rat flea</td>
<td>Murine (or endemic) typhus</td>
<td>Australia (including WA), overseas</td>
</tr>
<tr>
<td><strong>(2 species)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Rickettsia prowazekii</em></td>
<td>Human body louse</td>
<td>Epidemic typhus (jail fever)</td>
<td>Overseas</td>
</tr>
<tr>
<td><strong>Transitional group</strong></td>
<td><em>Rickettsia felis</em></td>
<td>Fleas</td>
<td>Cat flea rickettsiosis</td>
<td>Australia (including WA), overseas</td>
</tr>
<tr>
<td><strong>(2 species)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Rickettsia akari</em></td>
<td>Mouse mite</td>
<td>Rickettsial pox</td>
<td>Overseas (North America, Europe, Africa)</td>
</tr>
</tbody>
</table>

# The 20 established *Rickettsia* species in the spotted fever group are not known to occur in WA. However, it is possible that other spotted fever group *Rickettsia* sp. may cause locally-acquired disease, given that at least one other species in this group has been detected in ticks sourced from parts of WA, and human cases without a travel history outside WA have been diagnosed with spotted fever group infection (demonstration of four-fold rise in titre).

*Some authors classify this species within the transitional group.*
**83. Vancomycin-resistant enterococci (VRE) (Not nationally notifiable)**
(last updated: 2017)

**Reporting**
Only confirmed cases identified from clinical and screening specimens, i.e. infection and colonisation, will be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence only.

**Laboratory definitive evidence**
Isolation of *Enterococcus faecalis* or *Enterococcus faecium* by culture from any sites, that are resistant to vancomycin, and carry the vanA, vanB or vanM gene.

**Notes:**
Notification of VRE cases to the Communicable Disease Control Directorate (CDCD) and Public Health Units is not required by healthcare providers and laboratory personnel.

Private and public laboratories that identify VRE cases are required to notify patient details to the Microbiology Department, PathWest Laboratory Medicine Western Australia (LMWA) Gram-positive Typing Laboratory* at Fiona Stanley Hospital.

At the same time as notification, referring laboratories should forward the positive VRE isolate to the Gram-positive Typing Laboratory for vanA, vanB or vanM confirmation and characterisation.

* The Gram-positive Typing Laboratory PathWest LMWA works in collaboration with the Antimicrobial Resistance Infectious Diseases Research (AMR-ID) Laboratory, Murdoch University.
84. **Varicella-zoster virus infection (chickenpox)**  
(last updated: 1 January 2018)

**Reporting**
Both confirmed cases AND probable cases should be notified.

**Confirmed case**
A confirmed case requires either:
1. Laboratory definitive evidence AND clinical evidence
   OR
2. Clinical evidence AND epidemiological evidence

**Probable case**
A probable case requires clinical evidence only.

**Laboratory definitive evidence**
1. Isolation of varicella-zoster virus from a skin or lesion swab. If the case received varicella vaccine between five and 42 days prior to the onset of rash the virus must be confirmed to be a wild type strain.
   OR
2. Detection of varicella-zoster virus from a skin or lesion swab by nucleic acid testing. If the case received varicella vaccine between five and 42 days prior to the onset of rash the virus must be confirmed to be a wild type strain.
   OR
3. Detection of varicella-zoster virus antigen from a skin or lesion swab by direct fluorescent antibody. If the case received varicella vaccine between five and 42 days prior to the onset of rash the virus must be confirmed to be a wild type strain.
   OR
4. IgG seroconversion or a significant increase in antibody level, such as a fourfold or greater rise in titre to varicella-zoster virus (VZV) EXCEPT if the case has received a VZV-containing vaccine eight days to eight weeks prior to convalescent specimen collection. (NOTE: paired sera must be tested in parallel)

**Clinical evidence**
Acute onset of a diffuse maculopapular rash developing into vesicles within 24–48 hours and forming crusts (or crusting over) within 5 days.

**Epidemiological evidence**
An epidemiological link is established when there is:
1. Contact between two people involving a plausible mode of transmission at a time when:
   a. one of them is likely to be infectious
   AND
   b. the other has illness 10 to 21 days after contact
   AND
2. At least one case in the chain of epidemiologically-linked cases is laboratory confirmed.

**Note:** Laboratory confirmation should be strongly encouraged for vaccinated cases. If positive, samples should be referred for identification as a vaccine or wild type strain.
85. Varicella-zoster virus infection (shingles)

(last updated: 1 January 2018)

Reporting
Both confirmed cases AND probable cases should be notified.

Confirmed case
A confirmed case requires laboratory definitive evidence AND clinical evidence.

Probable case
A probable case requires clinical evidence only.

Laboratory definitive evidence
1. Isolation of varicella-zoster virus from a skin or lesion swab.
   OR
2. Detection of varicella-zoster virus from a skin or lesion swab by nucleic acid testing.
   OR
3. Detection of varicella-zoster virus antigen from a skin or lesion swab by direct fluorescent antibody.

Clinical evidence
A vesicular skin rash with a dermatomal distribution that may be associated with pain in skin areas supplied by sensory nerves of the dorsal root ganglia.

Note:
Laboratory confirmation should be strongly encouraged for vaccinated cases. If positive, samples should be referred for identification as a vaccine or wild type strain.
86. **Varicella-zoster virus infection (unspecified)**

(last updated: 1 January 2018)

**Reporting**
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence either in the absence of clinical information or where clinical evidence does not meet criteria for varicella-zoster infection (chickenpox) or varicella-zoster infection (shingles).

**Laboratory definitive evidence**
1. Isolation of varicella-zoster.  
   OR
2. Detection of varicella-zoster virus by nucleic acid testing.  
   OR
3. Detection of varicella-zoster virus antigen by direct fluorescent antibody.  
   OR
4. IgG seroconversion or a significant increase in antibody level, such as a fourfold or greater rise in titre to varicella-zoster virus (VZV) EXCEPT if the case has received a VZV-containing vaccine eight days to eight weeks prior to convalescent specimen collection. (NOTE: paired sera must be tested in parallel).
87. **Vibrio parahaemolyticus (Not nationally notifiable)**

(last updated: 2013)

**Reporting**
Only confirmed cases should be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence only.

**Laboratory definitive evidence**
Isolation or detection of *V. parahaemolyticus*. 
88. **Viral haemorrhagic fevers (quarantinable)**
(Quarantinable includes Ebola, Marburg, Lassa and Crimean-Congo fevers)

(last updated: 6 November 2014)

**Reporting**
Both confirmed cases **AND** probable cases should be notified.

**Confirmed case**
A confirmed case requires laboratory definitive evidence only.

**Laboratory definitive evidence**
Laboratory definitive evidence requires confirmation by the Victorian Infectious Diseases Reference Laboratory (VIDRL), Melbourne*, or the Special Pathogens Laboratory, Centers for Disease Control, Atlanta, or the Special Pathogens Laboratory, National Institute of Virology (NIV), Johannesburg.

1. Isolation of a specific virus
   **OR**
2. Detection of specific virus by nucleic acid testing or antigen detection assay
   **OR**
3. IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre to specific virus.

**Probable case**
A probable case requires laboratory suggestive evidence **AND** clinical evidence **AND** epidemiological evidence.

**Laboratory suggestive evidence**
1. Isolation of virus pending confirmation by VIDRL, Melbourne, or CDC, Atlanta or NIV, Johannesburg
   **OR**
2. Detection of specific virus by nucleic acid testing, pending confirmation by VIDRL, Melbourne, or CDC, Atlanta or NIV, Johannesburg
   **OR**
3. IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre to specific virus pending confirmation by VIDRL, Melbourne, or CDC, Atlanta or NIV, Johannesburg
   **OR**
4. Detection of IgM to a specific virus.

**Clinical evidence**
A compatible clinical illness as determined by an infectious disease physician. Common presenting complaints are fever, myalgia, and prostration, with headache, pharyngitis, conjunctival injection, flushing, gastrointestinal symptoms. This may be complicated by spontaneous bleeding, petechiae, hypotension and perhaps shock, oedema and neurologic involvement.

**Epidemiological evidence**
1. History of travel to an endemic/epidemic area within 9 days (Marburg), 13 days (Crimean Congo) or 21 days (Lassa, Ebola) of illness onset. Filoviruses are endemic in Sub-Saharan Africa, Lassa in Western Africa, Crimean Congo in
Africa and the Middle East to West China;

OR

2. Contact with a confirmed case

OR

3. Exposure to viral haemorrhagic fever (VHF)-infected blood or tissues.

* The first case in any outbreak in Australia will also be confirmed by CDC, Atlanta or NIV, Johannesburg.

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89. **Yellow fever**

(last updated: 2013)

**Reporting**

Only **confirmed cases** should be notified.

**Confirmed case**

A confirmed case requires either:

1. **Laboratory definitive evidence AND clinical evidence**  
   OR

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

**Laboratory definitive evidence**

1. Isolation of yellow fever virus  
   OR

2. Detection of yellow fever virus by nucleic acid testing  
   OR

3. Seroconversion or a four-fold or greater rise in yellow fever virus-specific serum IgM or IgG levels between acute and convalescent serum samples in the absence of vaccination in the preceding 3 weeks  
   OR

4. Detection of yellow fever virus antigen in tissues by immunohistochemistry.

**Laboratory suggestive evidence**

Yellow fever virus-specific IgM detected in the absence of IgM to other relevant flaviviruses, in the absence of vaccination in the preceding 3 months.

Confirmation of laboratory results by a second arbovirus reference laboratory is required in the absence of travel history to areas with known endemic or epidemic activity.

**Clinical evidence**

A clinically compatible illness.

**Epidemiological evidence**

History of travel to a yellow fever endemic country in the week preceding onset of illness.
90. **Yersinia infection (Not nationally notifiable)**

(last updated: 2013)

**Reporting**
Only **confirmed cases** should be notified.

**Confirmed case**
A confirmed case requires **laboratory definitive evidence** only.

**Laboratory definitive evidence**
1. Isolation or detection of *Yersinia enterocolitica* or *Yersinia pseudotuberculosis*  
   OR
2. A fourfold or greater rise in serum antibody titres between acute and convalescent phase sera  
   OR
3. A single elevated antibody titre in a patient with a clinically compatible illness.
91. **Zika virus infection (ZIKV)**

Nationally notified under Flavivirus infection (unspecified) (updated: 2016)

**Reporting**
Both confirmed and probable cases are nationally notifiable. Both confirmed and probable cases should be further sub-classified into clinical and non-clinical cases.

**Confirmed case**
A confirmed case requires laboratory definitive evidence only. Clinical evidence should be used to sub-classify cases as clinical or non-clinical.

**Laboratory definitive evidence**
Detection of ZIKV by nucleic acid testing or virus isolation

OR
IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre of ZIKV specific IgG, and recent infection by dengue or other epidemiologically possible flaviviruses has been excluded

OR
Detection of ZIKV specific IgM in cerebrospinal fluid, in the absence of IgM to other possible infecting flaviviruses

**Probable case**
A probable case requires laboratory suggestive evidence AND epidemiological evidence. Clinical evidence should be used to sub-classify cases as clinical or non-clinical.

**Laboratory suggestive evidence**
Detection of ZIKV specific IgM in the absence of IgM to other epidemiologically possible flaviviruses or flavivirus vaccination in the 3 weeks prior to testing.

**Notes:**
- If the date of most recent exposure was greater than 4 weeks before the specimen date, then ZIKV specific IgG must also be positive.
- If ZIKV specific IgG was initially negative and subsequent testing greater than 4 weeks after exposure fails to demonstrate seroconversion, the case should be rejected.

**Epidemiological evidence**

**Clinical case**
1. Travel to or residence in a ZIKV receptive country or area in Australia within two weeks prior to symptom onset;

OR
2. Sexual exposure to a confirmed or probable case of ZIKV infection within two weeks prior to symptom onset.

**Non-clinical case**
1. Travel to or reside in a ZIKV receptive country* or area in Australia within two months prior to specimen date.

OR
2. Sexual exposure to a confirmed or probable case of ZIKV infection within two months prior to specimen date.

Clinical case
Both confirmed and probable cases should be further classified into clinical or non-clinical cases.

Clinical evidence
An acute illness within two weeks of exposure with two or more of the following symptoms:
- Fever
- Headache
- Myalgia
- Arthralgia
- Rash
- Non-purulent conjunctivitis

In the absence of clinical evidence, the case will be classified as ‘non-clinical’.

* ZIKV receptive countries and areas are outlined on the Global Consensus Map at http://www.healthmap.org/dengue/en/. Areas are considered receptive to ZIKV where the likelihood of local acquisition is placed on the map as ‘uncertain’ or more.

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92. **Congenital Zika virus infection case definition**

Confirmed and probable cases are nationally notifiable under the disease *Flavivirus infection (unspecified)* using the Organism Name field to specify congenital ZIKV infection.

**Reporting**
Both confirmed and probable cases are nationally notifiable.

**Confirmed case**
A confirmed case requires laboratory definitive evidence only.

**Laboratory definitive evidence**

**Fetal (at 20 weeks gestation or more)**
Isolation or detection of ZIKV from appropriate clinical samples (i.e. fetal blood, amniotic fluid, chorionic villus sample or post-mortem cerebrospinal fluid or tissue) by viral culture or nucleic acid testing.

**Infant (within 28 days following birth)**
Isolation or detection of ZIKV from appropriate clinical samples by viral culture or nucleic acid testing, with no history of travel since birth to, or residence in, a ZIKV receptive country or area in Australia.

**Probable case**
A probable case requires clinical evidence AND epidemiological evidence.

**Clinical evidence**

**Epidemiological evidence**
Confined or probable ZIKV infection in the mother during pregnancy.

Footnotes

1. ZIKV receptive countries and areas are outlined on the Global Consensus Map at [http://www.healthmap.org/dengue/en/](http://www.healthmap.org/dengue/en/). Areas are considered receptive to ZIKV where the likelihood of local acquisition is placed on the map as ‘uncertain’ or more.
2. Head circumference < -2SD below mean for gestation.
5. WHO pregnancy management in the context of ZIKV. Interim guidance. 2 March 2016, WHO/ZIKV/MOC/16.2
7. These include ventriculomegaly, calcifications, abnormal sulcation and gyration, brain atrophy, callosal dysgenesis, microophthalmia, eye calcifications.


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The CDNA Guidelines for Zika virus are available on the CDNA website:
APPENDIX A: Note regarding detection of IgGs

Wherever possible when a serological diagnosis is made, recent infection should be shown to have occurred by demonstrating a significant change in IgG between acute and convalescent sera. It is particularly important for infections which either fail to produce a measurable IgM response (eg influenza) or where the IgM response persists for extended periods (eg. flavivirus infections). Usually an interval of 10-14 days is sufficient, though for some infections (eg. legionellosis) the antibody rise may take up to 4-6 weeks. Significant changes in IgG may be shown by either:

- **Seroconversion**: Change from IgG negative to IgG positive between acute and convalescent samples. This may be used for confirming recent infection using tests that do not quantify the antibody levels. That includes most enzyme-linked immunosorbent assay, particle agglutination, immunofluorescent antibody and latex agglutination tests as performed routinely.

- **Significant increase in antibody level or titre**: This is generally confined to tests which use titrations in two-fold dilutions, in which a four-fold increase is regarded as significant. For enzyme-linked immunosorbent assays that are not titred, it may be possible to establish changes in absorbance that may be regarded as significant.
**APPENDIX B: Epidemiological linkage**

General description of an ‘epidemiological link’

An epidemiological link is established when there is:

1. Contact between two people involving a plausible mode of transmission at a time when:
   a) one of them is likely to be infectious;
   AND
   b) the other has an illness which starts within the incubation period after this contact;
   AND

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

**Notes and examples of epidemiological linkage**

- To be notified, epidemiologically linked cases must also satisfy the clinical criteria.
- Cases may be identified/reported in a different order to that in which they became ill.
- If the linked case became ill after the laboratory confirmed case, then the link is prospective (Figure A). If the linked case became ill before the laboratory confirmed case then the link is retrospective (Figure B). A chain of epidemiologically linked cases is established when further cases are either retrospectively or prospectively linked to those already linked to the laboratory confirmed case (Figure C).

**Figure A: Prospectively linked case**

Laboratory confirmed case

Epidemiologically linked case

Time

**Figure B: Retrospectively linked case**

Laboratory confirmed case

Epidemiologically linked case

Time
Figure C: Chain of epidemiologically linked cases (example)*

* One case in the chain needs to be laboratory confirmed

E = exposure period, I = infectious period
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