Government of Western Australia
Department of Health
Public Health and Clinical Services

Surveillance Case Definitions

for Notifiable Infectious Diseases and Related Conditions in Western Australia

Communicable Disease Control Directorate

December 2023

Revision history

Version	Changes
December 2023	Chapter 11 *Candida auris* (*C. auris*) (Not nationally notifiable) • Addition of *Candida auris* case definition **The following changes were made to reflect recent updates to the Australian national notifiable diseases case definitions:** Chapter 77 Syphilis (congenital) • *Minor amendment* Criteria amended for "Laboratory Definitive Evidence (stillbirth)" to include placenta; umbilical cord; amniotic fluid as suitable specimens.
March 2023	**The following changes were made to reflect recent updates to the Australian national notifiable diseases case definitions:** Chapter 40 Japanese encephalitis virus infection • Confirmed case: need for clinical evidence removed, need for second laboratory confirmation of cases acquired in mainland Australia removed, addition of requirement for laboratory with "extensive experience in the diagnostic testing of arbovirus", laboratory definitive evidence revised • Addition of Probable case definition Chapter 52 Monkeypox virus infection • Addition of Monkeypox Virus Infection case definition Chapter 76 Syphilis – congenital • Relabelling "laboratory definitive evidence" to "laboratory definitive evidence (live birth)" and creation of "laboratory definitive evidence (stillborn)". • Relabelling "laboratory suggestive evidence" to "laboratory suggestive evidence (live birth) and creation of "laboratory suggestive evidence (stillborn)". Inclusion of Treponema pallidum-specific rapid immunochromatography to determine positivity in the mother of the congenital syphilis case. • Polymerase Chain Reaction (PCR) specified under nucleic acid amplification (NAA) test. • Restructuring of "clinical evidence" to "clinical evidence (confirmed)" and "clinical evidence (probable)". • Notes added for stillbirth and livebirth, neonatal death, perinatal period and a minor update to treatment. Chapter 80 Tuberculosis • Laboratory definitive evidence rewritten to exclude - *M. tuberculosis*, *M. bovis* or *M. africanum* from notification • Clinical evidence was rewritten to exclude - 'clinical' from the statement on two places: A clinician experienced in tuberculosis makes a clinical diagnosis of tuberculosis, including follow-up assessment to ensure a consistent course.
January 2023	**The following changes were made to reflect recent updates to the Australian national notifiable diseases case definitions:** Chapter 14 Chlamydial infection (excluding eye infections) • Addition of clarifying statement around point of care testing as laboratory evidence.

	Chapter 23 Gonococcal infection • Addition of clarifying statement around point of care testing as laboratory evidence. Chapter 30 Hepatitis C (individual aged less than 24 months) • New case definition chapter Chapter 31 Hepatitis C newly acquired • Reference to individuals <24 months from the newly acquired case definition has been removed to create new category (Hepatitis C (individual aged less than 24 months). • Additional lines of laboratory (definitive and suggestive) and clinical evidence, including evidence to support re-infection. • Addition of footnotes regarding inclusion of positive point of care test results as evidence and sustained virological response. Chapter 32 Hepatitis C unspecified • Inclusion of additional lines of laboratory evidence. • Addition of footnotes regarding inclusion of positive point of care test results as evidence and sustained virological response. Chapter 36 Human immunodeficiency virus (HIV) infection – child aged < 18 months • Laboratory definitive and laboratory suggestive evidence updated to reflect advances in laboratory testing. • Detection of HIV nucleic acid (RNA or DNA) included as laboratory definitive and suggestive evidence. Chapter 37 Human immunodeficiency virus (HIV) infection – individual aged ≥ 18 months • Integration of HIV – newly acquired and HIV – unspecified into one case definition that covers both stages of infection. • Laboratory definitive and laboratory suggestive evidence updated to reflect advances in laboratory testing. • Detection of HIV nucleic acid (RNA or DNA) included as laboratory definitive evidence (in combination with other evidence) and as laboratory suggestive evidence.
February 2022	**The following changes were made to reflect recent updates to the Australian national notifiable diseases case definitions:** Chapter 38 Influenza case definition • 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. Chapter 44 Leptospirosis case definition • Inclusion of a probable category for cases with laboratory suggestive evidence. Chapter 53 Mumps case definition • Inclusion of a probable case definition • Additional detail to laboratory definitive evidence point 3 criterion and inclusion of a footnote to allow recently vaccinated cased to potentially be considered as confirmed cases.

	• Laboratory suggestive evidence moved and adjusted to form part of the probable case definition. • Adjustment to the clinical evidence criteria
September 2021	**The following changes were made to reflect recent updates to the Australian national notifiable diseases case definitions:** <u>Chapter 34 Human coronavirus with pandemic potential (COVID-19)</u> • Link to Coronavirus Disease 2019 CDNA Series of National Guidelines (SoNG) added <u>Chapter 39 Invasive Group A Streptococcal (iGAS) Disease</u> • Addition of Invasive Group A Streptococcal (iGAS) Disease case definition <u>Chapter 64 Respiratory Syncytial Virus (RSV) laboratory-confirmed</u> • Addition of Respiratory Syncytial Virus (RSV) laboratory-confirmed case definition
January 2019	**The following changes were made to reflect recent updates to the Australian national notifiable diseases case definitions:** <u>Chapter 71 Smallpox case definition</u> • Removal of 'credible' and addition of 'syndrome consistent with'. • Addition of a footnote under clinical evidence. • Additional detail to epidemiological links. • Link to Smallpox CDNA Series of National Guidelines (SoNG) added <u>Chapter 23 Gonococcal infection</u> • Link to Gonococcal infection CDNA Series of National Guidelines (SoNG) added <u>Chapter 60 Q Fever</u> • Link to Q Fever CDNA Series of National Guidelines (SoNG) added
July 2019	**The following changes were made to reflect recent updates to the Australian national notifiable diseases case definitions:** <u>Chapter 23 Gonococcal infection case definition</u> *"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. <u>Chapter 46 Measles case definition</u> • 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."*
November 2018	The Surveillance Case Definitions Manual was reviewed and updated to be consistent with current Western Australian and Australian case definitions for notifiable communicable diseases.

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, *Candida auris*, 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).

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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[A]
- ≥ 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*

Gender		
Age (years)	**Boys**	**Girls**
1	103	104
2	106	105
3	109	107
4	111	108
5	112	110
6	114	111
7	115	113
8	116	115
9	118	117
10	119	119
11	121	121
12	123	123
13	126	124
14	128	126
15	131	127
16	134	128
17	136	129

* National High Blood Pressure Education Program Working Group on High Blood Pressure in Children and Adolescents. The fourth report on the diagnosis, evaluation, and treatment of high blood pressure in children and adolescents. Pediatrics. 2004; 114 (Suppl 2): 555–576. Data for children on 50th centile for height. Full data including adjustments for height at http://www.nhlbi.nih.gov/files/docs/resources/heart/hbp_ped.pdf

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) 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)

The CDNA Guidelines for ARF and RHD are available on the CDNA website:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-arf-rhd.htm

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

(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

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:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-abvl-rabies.htm

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

OR

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);

OR

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.

OR

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;

OR

2. Conjunctivitis

OR

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)

The CDNA Guidelines for Avian influenza in humans are available on the CDNA website: http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-avian-influenza.htm

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

(last updated: 2004)

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*
   OR
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. Candida auris (C. auris) (Not nationally notifiable)

(last updated 2023)

Reporting
Only confirmed cases should be notified.

Confirmed case

A confirmed case requires laboratory definitive evidence only.

Laboratory definitive evidence

Isolation of *Candida auris* from clinical and screening specimens, i.e. infection and colonisation.

Notes:
Notification of *Candida auris* cases should be made directly to the Communicable Disease Control Directorate (CDCD) by the diagnosing laboratory. Notification to Public Health Units is not required.

In addition, private and public laboratories that detect *Candida auris* are requested to forward the isolate with patient details to the Mycology Department, PathWest Laboratory Medicine Western Australia (LMWA) at Fiona Stanley Hospital for further molecular typing and notification to the National Critical Antimicrobial Resistances (CARAlert). *Candida auris* surveillance data are reported separately to other notifiable disease data.

12. 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.

13. 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.

14. 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.

15. Chlamydial infection (excluding eye infections)

(last updated: 1 January 2023)

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[1]
   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.*

[1] The use of point-of-care tests in the context of this case definition are for the purposes of surveillance. These point-of-care tests for detecting *Chlamydia trachomatis* must be listed on the *Australian Register of Therapeutic Goods* and administered by appropriately trained persons in-line with National Pathology Accreditation Advisory Council's (NPAAC) *Requirements for Point-of-Care Testing*. Because point of care tests are sometimes used outside of a quality management governance environment or an accredited pathology laboratory (as described by NPAAC), the PHLN laboratory case definition does not apply to tests performed in these settings.

16. Cholera

(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 toxigenic *Vibrio cholerae* O1 or O139.

i.e. Isolation of *V. cholerae* that is serotype O1or O139 AND toxin-positive

17. 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.

18. 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 PrP^{SC} positive tonsil biopsy.

19. 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.

20. 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.
OR
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:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-dengue

21. 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.

22. 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.

23. 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.

24. Gonococcal infection

(last updated: 1 January 2023)

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[1]

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)

The CDNA Guidelines for Gonococcal Infection are available on the CDNA website: https://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-gonococcal-infection.htm

[1] The use of point-of-care tests in the context of this case definition are for the purposes of surveillance. These point-of-care tests for detecting *Neisseria gonorrhoeae* must be listed on the *Australian Register of Therapeutic Goods* and administered by appropriately trained persons in-line with National Pathology Accreditation Advisory Council's (NPAAC) *Requirements for Point-of-Care Testing*. Because point of care tests are sometimes used outside of a quality management governance environment or an accredited pathology laboratory (as described by NPAAC), the PHLN laboratory case definition does not apply to tests performed in these settings.

25. 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. Thrombocytopaenia, 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.

26. 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:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-hib.htm

27. 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)

The CDNA Guidelines for Hendra virus are available on the CDNA website:
http://www.health.gov.au/internet/main/publishing.nsf/content/0E7D7BF4F17C1A96CA257BF0001CBF10/$File/Hendra-virus-SoNG.pdf

28. 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:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-hepa.htm

29. Hepatitis B – newly acquired

(last updated: 1 July 2015)

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)

The CDNA Guidelines for Hepatitis B are available on the CDNA website:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-hepb.htm

30. Hepatitis B – unspecified

(last updated: 1 July 2015)

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)

The CDNA Guidelines for Hepatitis B are available on the CDNA website:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-hepb.htm

31. Hepatitis C (individual aged less than 24 months)

(last updated: 1 January 2023)

Reporting

Only confirmed cases should be notified.

Confirmed case

A confirmed case requires laboratory definitive evidence only

Laboratory definitive evidence

1. Detection of anti-hepatitis C antibody in a child aged 18 months to <24 months
   OR
2. Detection of hepatitis C virus by nucleic acid testing[1] in a child aged 1 month to <24 months

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

The CDNA Guidelines for Hepatitis C are available on the CDNA website:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-hepc.htm

[1] The use of point-of-care tests in the context of this case definition are for the purposes of surveillance. These point-of-care tests for detecting hepatitis C RNA must be listed on the *Australian Register of Therapeutic Goods* and administered by appropriately trained persons in-line with National Pathology Accreditation Advisory Council's (NPAAC) *Requirements for Point-of-Care Testing*. Because point of care tests are sometimes used outside of a quality management governance environment or an accredited pathology laboratory (as described by NPAAC), the PHLN laboratory case definition does not apply to tests performed in these settings.

32. Hepatitis C – newly acquired

(last updated: 1 January 2023)

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 in 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[1] in a person who has had a negative anti-hepatitis C antibody test result recorded within the past 24 months
   OR
3. Detection of hepatitis C virus by nucleic acid testing[1] in a person with previous evidence of hepatitis C virus infection who has two negative hepatitis C nucleic acid test results recorded where at least one specimen was collected within the past 24 months
   OR
4. Detection of hepatitis C virus by nucleic acid testing with a different genotype to that previously documented within the past 24 months

Laboratory suggestive evidence

1. Detection of anti-hepatitis C antibody with no prior evidence of hepatitis C virus infection
   OR
2. Detection of hepatitis C virus by nucleic acid testing[2] in a person with no prior evidence of hepatitis C virus infection
   OR
3. Detection of hepatitis C virus by nucleic acid testing[2] in a person with previous evidence of hepatitis C virus infection who has had one negative hepatitis C nucleic acid test result recorded[3] within the past 24 months

Clinical evidence

1. Clinical hepatitis within the past 24 months (where other causes of acute hepatitis have been excluded, including hepatic flares due to acute exacerbation

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[1] The use of point-of-care tests in the context of this case definition are for the purposes of surveillance. These point-of-care tests for detecting hepatitis C RNA must be listed on the Australian Register of Therapeutic Goods and administered by appropriately trained persons in-line with National Pathology Accreditation Advisory Council's (NPAAC) Requirements for Point-of-Care Testing. Because point of care tests are sometimes used outside of a quality management governance environment or an accredited pathology laboratory (as described by NPAAC), the PHLN laboratory case definition does not apply to tests performed in these settings.

[2] The use of point-of-care tests in the context of this case definition are for the purposes of surveillance. These point-of-care tests for detecting hepatitis C RNA must be listed on the Australian Register of Therapeutic Goods and administered by appropriately trained persons in-line with National Pathology Accreditation Advisory Council's (NPAAC) Requirements for Point-of-Care Testing. Because point of care tests are sometimes used outside of a quality management governance environment or an accredited pathology laboratory (as described by NPAAC), the PHLN laboratory case definition does not apply to tests performed in these settings.

[3] Indicates spontaneous clearance of a previous infection or post-treatment sustained virological response (SVR).

in a person with previous evidence of hepatitis C virus infection) defined as:

a. Jaundice

OR

b. Alanine transaminase (ALT) ten times the upper limit of normal

OR

2. a person with previous evidence of hepatitis C virus infection with documented completion of appropriate hepatitis C treatment.

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

The CDNA Guidelines for Hepatitis C are available on the CDNA website: http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-hepc.htm

33. Hepatitis C – unspecified

(last updated: 1 January 2023)

Reporting

Only confirmed cases should be notified.

Confirmed case

A confirmed case requires laboratory definitive evidence AND that the case does not meet the criteria for a newly acquired case AND is aged 24 months or older.

Laboratory definitive evidence

1. Detection of anti-hepatitis C antibody in a person with no prior evidence of hepatitis C virus infection
   OR
2. Detection of hepatitis C virus by nucleic acid testing[1] in a person with no prior evidence of hepatitis C virus infection
   OR
3. Detection of hepatitis C virus by nucleic acid testing[1] in a person who has had two consecutive negative hepatitis C nucleic acid test results recorded[2] both of which were more than 24 months ago
   OR
4. Detection of hepatitis C virus by nucleic acid testing of a different genotype to that previously documented more than 24 months ago

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

The CDNA Guidelines for Hepatitis C are available on the CDNA website:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-hepc.htm

[1] The use of point-of-care tests in the context of this case definition are for the purposes of surveillance. These point-of-care tests for detecting hepatitis C RNA must be listed on the *Australian Register of Therapeutic Goods* and administered by appropriately trained persons in-line with National Pathology Accreditation Advisory Council's (NPAAC) *Requirements for Point-of-Care Testing*. Because point of care tests are sometimes used outside of a quality management governance environment or an accredited pathology laboratory (as described by NPAAC), the PHLN laboratory case definition does not apply to tests performed in these settings.

[2] Indicates spontaneous clearance of a previous infection or post-treatment sustained virological response (SVR).

34. 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.

35. 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.

36. Human coronavirus with pandemic potential (COVID-19)

(last updated: 24 June 2021)

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

The case definition and CDNA Guidelines for Coronavirus Disease 2019 are available on the CDNA website:
https://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-novel-coronavirus.htm

37. Human immunodeficiency virus (HIV) infection – child aged < 18 months

(last updated: 1 January 2023)

Reporting

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

Confirmed case

A confirmed case requires laboratory definitive evidence only.

Laboratory definitive evidence

1. Detection of HIV-1 p24 antigen, confirmed by neutralisation, on two separate specimens[1,2] on different days
   OR
2. Detection of HIV nucleic acid (RNA or DNA) by an HIV nucleic acid test[3,4] on two separate specimens[1,2] on different days

Probable case

A probable case requires laboratory suggestive evidence only.

Laboratory suggestive evidence

1. Detection of HIV-1 p24 antigen, confirmed by neutralisation on a single specimen[1,2]
   OR
2. Detection of HIV nucleic acid (RNA or DNA) by an HIV nucleic acid test[3,4] on a single specimen[1,2]

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

The CDNA Guidelines for HIV infection are available on the CDNA website:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-HIV.htm

[1] Sample must be from a child ≥1 month of age.

[2] Sample cannot be cord blood.

[3] RNA testing should be performed using a commercial nucleic acid test assay with an in-vitro diagnostic (IVD) medical device which has been classified by the Therapeutic Goods Administration as a Class 4 IVD and entered on the *Australian Register of Therapeutic Goods (ARTG)* for diagnostic purposes.

[4] HIV nucleic acid testing should be performed on a dedicated specimen not previously used for other testing.

38. Human immunodeficiency virus (HIV) infection – individual aged ≥ 18 months

(last updated: 1 January 2023)

Reporting

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

Confirmed case

A confirmed case requires laboratory definitive evidence only.

Laboratory definitive evidence

Reactive[1] HIV antibody or HIV antigen/antibody combination assay

AND at least one of the following

1. Positive western blot
   OR
2. Detection of HIV-1 p24 antigen, confirmed by neutralisation
   OR
3. Detection of HIV nucleic acid (RNA or DNA) by an HIV nucleic acid test [2,3]

Probable case

A probable case requires laboratory suggestive evidence only.

Laboratory suggestive evidence

1. Detection of HIV-1 p24 antigen, confirmed by neutralisation
   OR
2. Detection of HIV nucleic acid (RNA or DNA) by an HIV nucleic acid test [2,3]

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

The CDNA Guidelines for HIV infection are available on the CDNA website:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-HIV.htm

[1] False positive results can occur infrequently with screening tests, and hence screening test results should be reported as reactive rather than positive. Most manufacturers of HIV screening assays recommend samples that are initially reactive be retested in duplicate in the same assay to confirm the result, in-line with the National Pathology Accreditation Advisory Council (NPAAC) *Requirements for Laboratory Testing of HIV*.

[2] RNA testing should be performed using a commercial nucleic acid test assay with an in-vitro diagnostic (IVD) medical device which has been classified by the Therapeutic Goods Administration as a Class 4 IVD and entered on the *Australian Register of Therapeutic Goods (ARTG)* for diagnostic purposes.

[3] HIV nucleic acid testing should be performed on a dedicated specimen not previously used for other testing.

39. 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:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-influenza.htm

For the **Avian influenza** case definition see:

6. Avian influenza in humans (AIH) (page 12)

40. 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.

Interim guidelines for the public health management of Invasive Group A Streptococcal Disease are available on the health.wa.gov.au website:

Invasive group A streptococcal disease – (iGAS) (health.wa.gov.au)

41. Japanese encephalitis virus infection

(last updated: December 2022)

Reporting

Only confirmed cases and probable cases should be notified.

Confirmed case

A confirmed case requires laboratory definitive evidence[1] from a laboratory with extensive experience in the diagnostic testing of arbovirus.

Laboratory definitive evidence

1. Isolation of Japanese encephalitis virus (JEV) by culture
   OR
2. Detection by nucleic acid testing (NAT) specific for JEV
   OR
3. IgG seroconversion or a diagnostically significant increase in antibody level or a fourfold or greater rise in JEV-specific IgG titres proven by neutralisation or another specific test, with no history of recent vaccination against JEV[2]
   OR
4. Detection of JEV-specific IgM in cerebrospinal fluid (CSF), without the detection of other flavivirus-specific IgM[3]

Probable case

A probable case requires laboratory suggestive evidence from a laboratory with extensive experience in the diagnostic testing of arbovirus AND clinical evidence

Laboratory suggestive evidence

1. Detection of JEV-specific IgM in CSF which is significantly greater[4] than other flavivirus-specific IgM levels, (if also detected)[3]

   OR

2. Detection of JEV-specific IgM in serum with no history of recent JEV vaccination[2]

   a. without detection of other flavivirus-specific IgM in serum or CSF[3]
   OR
   b. which is significantly greater[4] than other flavivirus-specific IgM levels (if also detected)[3]

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[1] Non-encephalitic cases detected as part of a serosurvey should not be notified
[2] Recent vaccination is considered to be 28 days; however advice should be sought from the authorising pathologist and the clinician regarding individual circumstances. Convalescent serum should be collected where possible.
[3] E.g. Murray Valley encephalitis, West Nile/Kunjin and/or dengue virus.
[4] Public health units should seek advice from the responsible authorising pathologist with regard to the interpretation of JEV positive serology results in the presence other flaviviruses.
[5] Including but not limited to other flaviviruses (such as Murray Valley encephalitis virus, West Nile/Kunjin and dengue viruses), Herpes Simplex Virus, Varicella Zoster Virus and enteroviruses.
[6] Not definitive, but ≥5 leucocytes/µl is indicative

OR

3. Detection of JEV-specific IgG in CSF:

   a. without detection of other flavivirus-specific IgG[3]
   OR
   b. which is significantly greater[4] than other flavivirus-specific IgG levels (if also detected)[3]
   AND
   c. with no history of recent JEV vaccination[2] unless the case also has encephalitic illness compatible with JEV infection in the absence of a known alternative cause[5]

Clinical evidence

1. Encephalitic disease: acute meningoencephalitis characterised by one or more of the following:
   a. focal neurological disease, or seizures, or acute impairment in level of consciousness;
   b. an abnormal computerised tomogram or magnetic resonance image or electroencephalogram consistent with flavivirus encephalitis;
   c. presence of pleocytosis in cerebrospinal fluid[6]
   OR

2. Non-encephalitic disease: acute febrile illness with headache, with or without myalgia or rash

[1] Non-encephalitic cases detected as part of a serosurvey should not be notified
[2] Recent vaccination is considered to be 28 days; however advice should be sought from the authorising pathologist and the clinician regarding individual circumstances. Convalescent serum should be collected where possible.
[3] E.g. Murray Valley encephalitis, West Nile/Kunjin and/or dengue virus.
[4] Public health units should seek advice from the responsible authorising pathologist with regard to the interpretation of JEV positive serology results in the presence other flaviviruses.
[5] Including but not limited to other flaviviruses (such as Murray Valley encephalitis virus, West Nile/Kunjin and dengue viruses), Herpes Simplex Virus, Varicella Zoster Virus and enteroviruses.
[6] Not definitive, but ≥5 leucocytes/µl is indicative

42. 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
   OR
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.

43. 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
3. Detection of *Legionella* by direct fluorescence assay.

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: http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-legionella.htm

44. 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.

45. 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

46. 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:
    - Granlomatosis 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:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-listeriosis.htm

47. 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)

The CDNA Guidelines for Rabies Virus and Other Lyssavirus (including Bat Lyssavirus) are available on the CDNA website: http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-abvl-rabies.htm

48. 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.

49. 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
   OR
2. Clinical evidence *AND* epidemiological evidence*.

Laboratory definitive evidence

At least one of the following:

1. Isolation of measles virus*
   OR
2. Detection of measles virus by nucleic acid testing*
   OR
3. Detection of measles virus antigen*
   OR
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
   AND
2. Fever (at least 38°C if measured) at the time of rash onset
   AND
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)
      AND
   b. the other has an illness that starts within seven to 18 days after this contact
      AND
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)

The CDNA Guidelines for measles are available on the CDNA website:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-measles.htm

50. 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.

51. 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:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-IMD.htm

52. Middle East respiratory syndrome coronavirus (MERS CoV)

(last updated: 1 July 2016)

Reporting

Confirmed and probable 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)

The CDNA Guidelines for MERS-CoV are available on the CDNA website:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-mers-cov.htm

53. Monkeypox Virus Infection

(last updated: 1 August 2022)

Reporting

Confirmed and probable cases should be notified. A suspected case definition has been developed in response to the current multi-country outbreak of monkeypox virus infection in non-endemic countries and may be discontinued as the outbreak evolves. Suspected cases should not be notified to the National Notifiable Disease Surveillance System (NNDSS) but should be reported to state and territory public health units.

Confirmed case

A confirmed case requires laboratory definitive evidence only.

Laboratory definitive evidence

1. Detection of monkeypox virus by nucleic acid amplification testing in clinical specimens
   OR
2. Detection of monkeypox virus-specific sequences using next generation sequencing for clinical specimens
   OR
3. Isolation of monkeypox virus by culture from clinical specimens

Probable case

A probable case requires laboratory suggestive evidence AND clinical evidence

Laboratory suggestive evidence

1. Detection of Orthopoxvirus by nucleic acid amplification testing in clinical specimens
   OR
2. Detection of Orthopoxvirus by electron microscopy from clinical specimens in the absence of exposure to another orthopoxvirus

Clinical evidence

A clinically compatible rash or lesion(s)1,2,3,4 on any part of the body with or without one or more clinical feature(s) of monkeypox virus infection:

- lymphadenopathy
- fever (>38°C) or history of fever
- headache
- myalgia
- arthralgia
- back pain
- fatigue

Suspected case[4]

A suspected case requires clinical evidence[5] AND epidemiological evidence

Clinical evidence

As for probable case

Epidemiological evidence

1. An epidemiological link to a confirmed or probable case of monkeypox virus infection in the 21 days before symptom onset
   OR
2. Overseas travel in the 21 days before symptom onset
   OR
3. Sexual contact and/or other physical intimate contact with a gay, bisexual or other man who has sex with men in the 21 days before symptom onset
   OR
4. Sexual contact and/or other physical intimate contact with individuals at social events associated with monkeypox activity[6] in the 21 days before symptom onset

Notes

1. Lesions typically begin to develop simultaneously and evolve together on any given part of the body, and may be generalised or localised, discrete or confluent. The evolution of lesions progress through four stages – macular, papular, vesicular, to pustular – before scabbing over.
2. For which the following causes of acute rash do not explain the clinical features: chickenpox, shingles, measles, herpes simplex, or bacterial skin infections.
3. Some cases may present with proctitis (painful inflammation of the rectum) in the absence of an externally visible rash or lesion(s).
4. Public health units should seek advice from the responsible authorising pathologist and the clinician regarding testing for monkeypox virus and other alternative causes.
5. A high or medium risk contact of a confirmed or probable case only requires one or more clinical feature(s) (i.e. does not require rash or lesion(s), if another symptom present) to be a suspected case.
6. This includes events previously associated with monkeypox activity internationally such as sex-on-premises venues, raves, festivals and other mass gatherings where there is likely to be prolonged close contact, or meeting new sexual partners through a dating or hook-up "app".

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

The CDNA Guidelines for Monkeypox Virus Infection are available on the CDNA website:
Monkeypox virus infection – CDNA National Guidelines for Public Health Units | Australian Government Department of Health and Aged Care

54. 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.

55. 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 classifies 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;

56. 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
   OR
2. Detection of Murray Valley 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 to Murray Valley encephalitis virus
   OR
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
   OR
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
   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.

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:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-mvev.htm

57. Paratyphoid

(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* 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)

The CDNA Guidelines for Typhoid and Paratyphoid fevers are available on the CDNA website:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-typhoid-paratyphoid.htm

58. 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*

OR

Detection of *B. pertussis* by nucleic acid testing

OR

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)

OR

Single high IgG and/or IgA titre to Pertussis Toxin (PT)

OR

Single high IgA titre to Whole Cell *B.pertussis* antigen.

Clinical evidence

A coughing illness lasting two or more weeks

OR

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:

a. 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:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-pertussis.htm

59. 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*.

60. 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.

61. 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).

62. 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).

63. 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 titre[2] to *C. psittaci* by MIF
   OR
2. A single high *C. psittaci* CF antibody titre.[2]

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)

The CDNA Guidelines for Psittacosis (Ornithosis) are available on the CDNA website: http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-psittacosis.htm

64. 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)

The CDNA Guidelines for Q Fever are available on the CDNA website:
https://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-q-fever.htm

65. 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: http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-abvl-rabies.htm

66. 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

67. 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)

68. Ross River 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 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.

69. 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.

70. 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)

71. 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.

72. 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*).

73. 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.

74. 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.

75. Shigellosis

(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

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*.

76. 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[1]

   OR

3. Detection of variola virus by nucleic acid testing at a non-reference laboratory[1].

Clinical evidence

A clinical syndrome consistent with smallpox[2] as judged by a specialist physician[3].

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.
2. Refer to the current Smallpox SoNG for clinical evidence (http://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-smallpox.htm)

3. Such as an infectious diseases physician, clinical microbiologist or public health physician.

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

The CDNA Guidelines for Smallpox are available on the CDNA website: https://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-smallpox.htm

77. Syphilis − congenital

(last updated: 25 August 2023)

Reporting

Both confirmed cases and probable cases should be notified, including confirmed and probable cases of syphilis-related stillbirth[1]

Confirmed case

A confirmed case requires:

1. Laboratory definitive evidence (live birth[2])

OR

2. Laboratory definitive evidence (stillbirth[1]) *AND* clinical evidence (confirmed)

Laboratory definitive evidence (live birth[2])

1. Mother and child both seropositive by a treponemal specific test[3]

AND

2. The child is a live birth[2]

AND

3. One or more of the following:

- Direct demonstration of *Treponema pallidum* by any of the following methods: nucleic acid amplification (NAA) test including polymerase chain reaction (PCR)[4]; dark field microscopy; fluorescent antibody or silver stain - in specimens from lesions; nasal discharge; placenta; umbilical cord; amniotic fluid; cerebrospinal fluid (CSF), autopsy material; or other appropriate test sites.

- Detection of *Treponema pallidum* specific IgM in the child.

- The child's serum non-treponemal[5] serology titre at birth is at least fourfold greater than the mother's titre.

Laboratory definitive evidence (stillbirth[1])

1. Mother is seropositive by a treponemal specific test[3]

AND

2. The pregnancy outcome is a stillbirth[1]

AND

3. There is evidence of infection in-utero through:

- Direct demonstration of *Treponema pallidum* in the foetus by any of the following methods: nucleic acid amplification (NAA) test including polymerase chain reaction (PCR)[4]; dark field microscopy; fluorescent antibody; or silver stain

– in specimens from: lesions; nasal discharge; cerebrospinal fluid (CSF); autopsy material; placenta; umbilical cord; amniotic fluid or other appropriate test sites.

Clinical evidence (confirmed)

In the event of a stillbirth[1] or neonatal death[6], a pathologist or clinician experienced in congenital syphilis makes a clinical diagnosis of congenital syphilis at autopsy.

Probable case

A probable case requires:

1. Laboratory suggestive evidence (live birth[2]) *AND* clinical evidence (probable)

OR

2. Laboratory suggestive evidence (stillbirth[1]) *AND* clinical evidence (probable)

Laboratory suggestive evidence (live birth[2])

Mother is seropositive by a treponemal specific test[3] *OR* the mother is seropositive by a *Treponema pallidum*-specific rapid immunochromatography,

AND

The child is a live birth[2],

AND

One or more of the following:

- Direct demonstration of *Treponema pallidum* as described under laboratory definitive evidence for a live birth[2] but without serological confirmation in the child
- Child seropositive on non-treponemal[5] testing in the absence of IgM testing.
- A reactive cerebrospinal fluid (CSF) non-treponemal[5] test (i.e. VDRL) in a non-traumatic lumbar puncture on the child.
- A child who remains seropositive by a treponemal specific test[3] at 15 months of age, which is confirmed either by another, different reactive treponemal specific test[3] or a reactive non-treponemal[5] 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) or *Treponema carateum* (pinta).

Laboratory suggestive evidence (stillbirth[1])

Mother is seropositive by a treponemal specific test[3] *OR* the mother is seropositive by a *Treponema pallidum*-specific rapid immunochromatography,

AND

The pregnancy outcome is a stillbirth[1],

AND there is:

- Direct demonstration of *Treponema pallidum* by any of the following methods: nucleic acid amplification (NAA) test including polymerase chain reaction (PCR)[4]; dark field microscopy; fluorescent antibody; or silver stain – in specimens from: placenta; umbilical cord; amniotic fluid.

Clinical evidence (probable)

One or more of the following:

- A live[2] or stillborn[1] child with ANY of the following evidence suggestive of congenital syphilis on physical examination: anaemia; osteochondritis; hepatosplenomegaly; skin rash; condylomata lata; rhinitis (snuffles); pseudoparalysis; meningitis; ascites; intrauterine growth retardation; or any other abnormality not better explained by an alternative diagnosis[7].
- Any features suggestive of congenital syphilis on radiographs of long bones.
- An elevated CSF cell count or protein (without other cause).
- The mother is seropositive in the perinatal period[8] AND has no documented evidence of adequate treatment[9].
- A pathologist or clinician with relevant skills in congenital infections makes a clinical diagnosis of congenital syphilis, including in the event of a stillbirth[1] or neonatal death[6].

Notes:

1. Still Birth Definition. A stillbirth is defined as the birth of a baby who has died any time from 20 weeks into the pregnancy through to the date of birth. When the length of gestation (pregnancy) is not known, the birth will be considered a stillbirth if the baby weighs 400 grams or more.

2. A live birth is the complete expulsion or extraction from the mother of a baby, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of the voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered live born.

3. Treponemal-specific tests are: Treponema pallidum immunoassays, Treponema pallidum haemagglutination assay (TPHA), Treponema pallidum particle agglutination assay (TPPA), Fluorescent Treponemal Antibody Absorption (FTA-Abs) and various IgM assays including 19S-IgM antibody test, or IgM immunoassay. IgM assays should not be used for screening purposes.

4. Treponema pallidum-specific Polymerase Chain Reaction (PCR): In-house in vitro diagnostic devices (IVDs) must comply with the Australian Therapeutic Goods Administration (TGA) regulatory requirements.

5. 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.

6. A neonatal death is defined as the death of a live birth[2] which occurs during the first 28 days of life. This may be subdivided into early neonatal deaths, occurring during the first seven days of life, and late neonatal deaths, occurring after the seventh day but before 28 completed days of life.

7. It is important to note the list of clinical evidence on physical examination is not exhaustive. An experienced clinician can apply judgement as to whether there is sufficient evidence, including other physical signs not listed, to determine whether it is a case.

8. Perinatal period for reporting purposes is defined as 20 completed weeks (140 days) of gestation and ends 28 completed days after birth.

9. Treatment is considered adequate if: a stage-appropriate penicillin-containing regimen was used 30 days or more prior to delivery, AND all antenatal and delivery pathology investigations were performed and results verified, AND there is no evidence of reinfection.

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

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.

Adequate treatment during pregnancy does not exclude the diagnosis of congenital syphilis if criteria for a confirmed or probable case are met.

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

The CDNA Guidelines for Syphilis are available on the CDNA website:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-syphilis.htm

78. Infectious 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
   OR
2. Laboratory suggestive evidence *AND* clinical evidence.

Laboratory definitive evidence

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

OR

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

Laboratory suggestive evidence

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

OR

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

OR

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

Clinical evidence

1. Presence of a primary chancre (or ulcer)

OR

2. Clinical signs of secondary syphilis.

Probable case

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

Either:

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

1. Contact with an infectious case AND laboratory suggestive evidence

OR

2. Laboratory suggestive evidence AND RPR ≥16

OR

3. Positive syphilis IgM AND laboratory suggestive evidence.

OR

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)

The CDNA Guidelines for Syphilis are available on the CDNA website:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-syphilis.htm

79. 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)

The CDNA Guidelines for Syphilis are available on the CDNA website:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-syphilis.htm

80. Tetanus

(last updated:1 January 2012)

Reporting

Only confirmed cases should be notified.

Confirmed case

A confirmed case requires either:

1. Laboratory definitive evidence
   OR
2. Clinical evidence.

Laboratory definitive evidence

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

Clinical evidence

A clinically compatible illness without other apparent cause.

81. Tuberculosis

(last updated: 1 July 2022)

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 (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 follow-up assessment to ensure a consistent clinical course.

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

The CDNA Guidelines for Tuberculosis are available on the CDNA website:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-tuberculosis

82. 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.

83. 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:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-typhoid-paratyphoid.htm

84. 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

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

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.

85. 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.

86. 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.

87. 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.

88. 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).

89. 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*.

90. 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.

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

The CDNA Guidelines for Ebola virus are available on the CDNA website: http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-ebola-Information-for-Health-Professionals

91. 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.

92. 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.

93. 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.

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

The CDNA Guidelines for Zika virus are available on the CDNA website: http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-zika.htm

94. 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[1] or area in Australia.

Probable case

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

Clinical evidence

Microcephaly[2,3,4,5,6] or other CNS abnormalities[7] in the infant or fetus (in the absence of any other known cause).

Epidemiological evidence

Confirmed 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/. 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.
3. WHO Assessment of infants with microcephaly in the context of ZIKV. Interim guidance. 4 March 2016, WHO/ZIKV/MOC/16.3 Rev.1.
4. WHO Growth standards for term neonates (http://www.who.int/childgrowth/standards/en/)
5. WHO pregnancy management in the context of ZIKV. Interim guidance. 2 March 2016, WHO/ZIKV/MOC/16.2
6. Intergrowth standards for preterm neonates (Villar Jos et al (2014). International standards for newborn weight, length, and head circumference by gestational age and sex: the Newborn Cross-sectional Study of the INTERGROWTH-21st Project. Lancet (384). 9946:857-868)

7. These include ventriculomegaly, calcifications, abnormal sulcation and gyration, brain atrophy, callosal dysgenesis, microophthalmia, eye calcifications.

Ref: http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-nndss-casedefs-cd_flavnec.htm

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

The CDNA Guidelines for Zika virus are available on the CDNA website:
http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-zika.htm

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

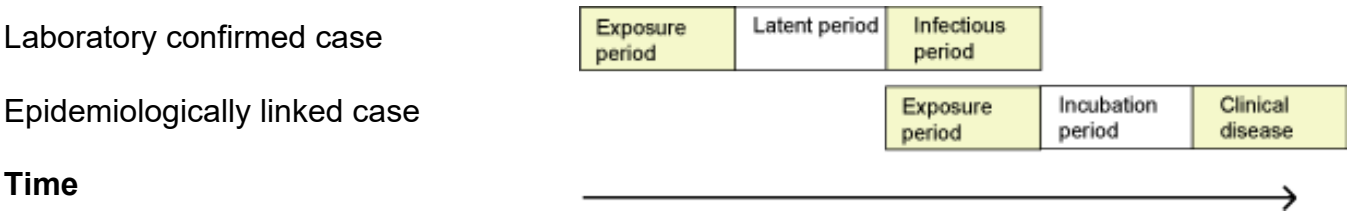


Figure B: Retrospectively linked case

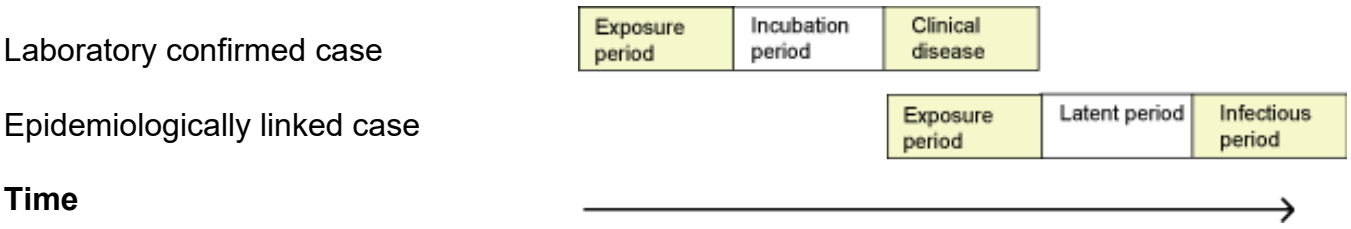
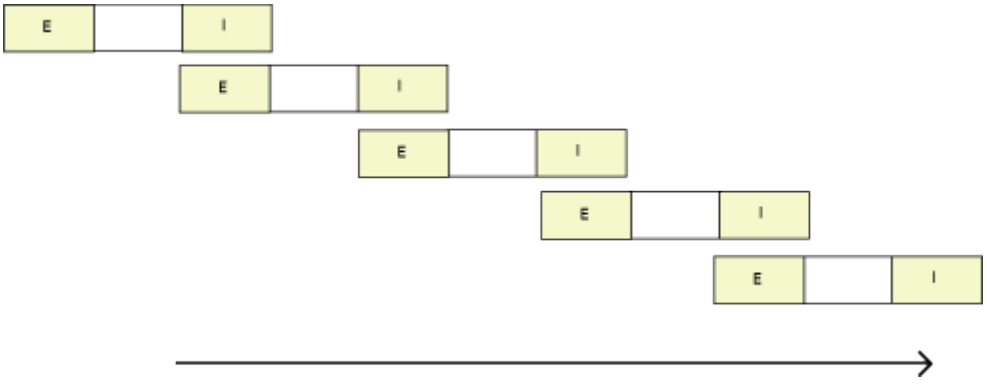


Figure C: Chain of epidemiologically linked cases (example)*



Time

* One case in the chain needs to be laboratory confirmed

E= exposure period, I= infectious period

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