

Guidelines for Laboratories

June 2022

Queensland Notification Criteria

1. Purpose

This document lists what results pathology laboratories should notify to the Queensland Notifiable Conditions Register for each condition that is currently notifiable under the Queensland *Public Health Act 2005* and Public Health Regulation 2018.

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Glossary of abbreviations

Term	Definition
CDNA	Communicable Diseases Network of Australia
CF	Complement fixation
CSF	Cerebrospinal fluid
EIA	Enzyme immunoassay
ELISA	Enzyme-linked immunosorbent assay
IFA	Immunofluorescence assay
IgA	Immunoglobulin A
IgG	Immunoglobulin G
IgM	Immunoglobulin M
MAT	Microscopic agglutination test
MIA	Microsphere immunoassay
MIF	Migration inhibitory factor
NAT	Nucleic acid testing
SNT	Serum neutralisation test
SoNG	Series of National Guidelines
VIDRL	Victorian Infectious Diseases Reference Laboratory

Alphavirus infections (getah, sindbis)

Isolation of a specified alphavirus

OR

Detection of specified alphaviral nucleic material by NAT

OR

IgG seroconversion or a fourfold or greater rise in titre in paired sera to specified alphavirus or a significant increase in IgG

OR

Detection of specified alphavirus specific IgM antibodies.

Date of last review 20 March 2014

Anthrax

Request for Anthrax testing is notifiable

Isolation of Bacillus anthracis vegetative cells or spores confirmed by a reference laboratory

OR

Detection of Bacillus anthracis by NAT

OR

Detection of Bacillus anthracis by microscopic examination of stained smears.

Date of last review 20 March 2014

Arbovirus infections (other, not specified)

Isolation of an arbovirus not otherwise specified

OR

Detection of specified arbovirus nucleic material by NAT

OR

IgG seroconversion or a fourfold or greater rise in titre in paired sera to specified arbovirus or significant increase in specific IgG

OR

Detection of specified arbovirus specific IgM antibodies.

Date of last review 20 March 2014

Avian influenza (human)

Request for avian influenza testing is notifiable

Detection of avian influenza virus by NAT from appropriate respiratory tract specimen

OR

Isolation of avian influenza virus by culture from appropriate respiratory tract specimen.

Date of last review 10 November 2016

Barmah Forest virus infection

Isolation of Barmah Forest virus

OR

Detection of Barmah Forest virus nucleic material by NAT

OR

IgG seroconversion or a significant increase in IgG antibody level (e.g. fourfold or greater rise in titre) to Barmah Forest virus

OR

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

Date of last review 10 March 2016

Botulism

Request for botulism testing is notifiable

Isolation of *Clostridium botulinum*

OR

Detection of *C. botulinum* toxin in serum or faeces.

Date of last review 20 March 2014

Brucellosis

Isolation of Brucella species

OR

IgG seroconversion or a significant increase in IgG antibody level (e.g. fourfold or greater rise) to Brucella

OR

Detection of Brucella species by NAT

OR

A single high Brucella agglutination titre.

Date of last review 10 November 2016

Bunyavirus infections (gangan, mapputta virus, termeil, trubanaman etc.)

Isolation of a specified bunyavirus from blood, CSF or tissue specimens

OR

Detection of specified bunyavirus nucleic material by NAT

OR

IgG seroconversion or a fourfold or greater rise in titre in paired sera to specified bunyavirus or a significant rise in IgG

OR

Detection of specified bunyavirus specific IgM antibodies.

Date of last review 20 March 2014

Campylobacteriosis

Isolation of Campylobacter species from faeces or other clinical specimen

OR

Detection by NAT of Campylobacter species from faeces or other clinical specimen.

Date of last review 20 March 2014

Chancroid

Isolation of *Haemophilus ducreyi*

OR

Detection of *Haemophilus ducreyi* by NAT from a genital ulcer specimen.

Date of last review 20 March 2014

Chikungunya

Isolation of chikungunya virus

OR

Detection of chikungunya virus by NAT

OR

Seroconversion or a significant rise in antibody level or a fourfold or greater rise in titre to chikungunya virus

OR

Detection of chikungunya virus-specific IgM.

Date of last review 20 March 2014

Chlamydia trachomatis infections (excluding *Lymphogranuloma venereum*)

Isolation of *Chlamydia trachomatis*

OR

Detection of *Chlamydia trachomatis* by NAT

OR

Detection of *Chlamydia trachomatis* antigen.

Date of last review 20 March 2014

Cholera

Isolation of *Vibrio cholerae* subgroup 01 or 0139

OR

Detection of Cholera toxin genes by NAT.

Date of last review 20 March 2014

Coronavirus (COVID-19/SARS-CoV-2)

Request for SARS-CoV-2 testing is notifiable

Detection of SARS-CoV-2 by NAT from any anatomical site

OR

Isolation of SARS-CoV-2 in cell culture from any anatomical site

OR

Detection of SARS-CoV-2 neutralising or IgG antibody in serum or plasma

OR

Detection of seroconversion or a significant rise (as determined by the testing laboratory) of SARS-CoV-2 neutralising or IgG antibody in serum or plasma in paired samples

Date of last review 29 July 2020

Coronavirus (Highly Pathogenic) – Middle Eastern Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS) only

Request for MERS or SARS coronavirus testing is notifiable

Detection of MERS or SARS coronavirus (MERS/SARS-CoV) by NAT using a validated method from at least two different clinical specimens (e.g. nasopharyngeal and stool)

OR

the same clinical specimen collected on two or more days during the course of the illness (e.g. sequential nasopharyngeal aspirates)

OR

two different assays or repeat NAT using a new RNA extract from the original clinical sample on each occasion of testing

OR

seroconversion or fourfold rise in titre to MERS/SARS-CoV in paired sera tested by ELISA or IFA (*serology not performed in Queensland*)

OR

Isolation of MERS/SARS-CoV AND detection of MERS/SARS-CoV by NAT using a validated method (*isolation not performed in Queensland*).

Date of last review 10 November 2016

Creutzfeldt-Jakob Disease

Histopathological report compatible with Creutzfeldt-Jakob disease examined by an anatomical pathologist experienced in Creutzfeldt-Jakob disease diagnosis

OR

Detection of 14-3-3 protein in cerebrospinal fluid.

Date of last review 20 March 2014

Cryptosporidiosis

Detection of *Cryptosporidium* oocysts in a faecal sample

OR

Detection of *Cryptosporidium* specific antigen

OR

Detection of *Cryptosporidium* by NAT.

Date of last review 20 March 2014

Dengue

Isolation of the specified flavivirus

OR

Detection of specified flavivirus nucleic material by NAT

OR

IgG seroconversion or a fourfold or greater rise in titre in paired sera to specified flavivirus proven by neutralisation or another specific test

OR

Detection of specified flavivirus specific IgM antibodies in CSF

OR

Detection of dengue virus-specific IgM in serum

OR

Detection of dengue non-structural protein 1 (NS1) antigen in blood.

Date of last review 2 November 2017

Diphtheria

Isolation of *Corynebacterium diphtheriae* possessing the toxin gene or *C. ulcerans* possessing the toxin gene confirmed by NAT

OR

Isolation of *Corynebacterium diphtheriae* or *C. ulcerans* (toxin production unknown).

Date of last review 15 March 2018

Donovanosis (granuloma inguinale)

Detection of *Klebsiella granulomatis* by NAT of a specimen taken from a lesion

OR

Demonstration of intracellular Donovan bodies on smears or biopsy specimens taken from a lesion.

Date of last review 20 March 2014

Flavivirus infections – specified other (alfuy, Edge Hill, kokobera, Stratford)

Isolation of the specified flavivirus from blood, CSF or tissue specimens

OR

Detection of specified flavivirus nucleic material by NAT

OR

IgG seroconversion or a fourfold or greater rise in titre in paired sera to specified flavivirus

OR

Detection of specified flavivirus specific IgM antibodies.

Date of last review 20 March 2014

Flavivirus infections (unspecified)

Isolation of an unspecified flavivirus from blood, CSF or tissue specimens

OR

Detection of group specific but flavivirus unspecified nucleic material by NAT

OR

IgG seroconversion or a fourfold or greater rise in titre in paired sera to an unspecified flavivirus

OR

Detection of unspecified flavivirus specific IgM antibodies.

Date of last review 7 July 2016

Gonococcal infection

Isolation of *Neisseria gonorrhoeae*

OR

Detection of *Neisseria gonorrhoeae* by NAT.

Date of last review 14 March 2019

Haemophilus influenzae type b infection (invasive)

Isolation of *Haemophilus influenzae* from a normally sterile site

OR

Detection of *Haemophilus influenzae* type b from a normally sterile site confirmed by NAT.

Date of last review 14 April 2014

Hendra virus infection

Request for Hendra virus testing is notifiable

Isolation of Hendra virus

OR

Detection of Hendra virus nucleic acid by appropriate methods

OR

Detection of antibody to Hendra virus by MIA, ELISA or IFA, or SNT.

Date of last review 20 March 2014

Hepatitis A

Detection of hepatitis A virus by NAT

OR

Detection of hepatitis A-specific IgM.

Date of last review 14 March 2019

Hepatitis B

Detection of hepatitis B surface antigen (HBsAg)

OR

Detection of hepatitis B virus by nucleic acid testing

OR

Hepatitis B core IgM antibody positive (Anti-HBc IgM)

OR

Hepatitis B core IgM antibody negative (Anti-HBc IgM) (if positive result for HBsAg or NAT)*

*Required for the purpose of classifying notifications as acute or chronic hepatitis B

Date of last review 5 July 2018

Hepatitis C

Detection of anti-hepatitis C antibody confirmed by second assay

OR

Detection of hepatitis C virus by NAT

OR

Detection of hepatitis C antigen.

Date of last review 7 July 2016

Hepatitis D

Detection of IgM or IgG antibodies to hepatitis D virus

OR

Detection of hepatitis D virus on liver biopsy.

Date of last review 20 March 2014

Hepatitis E

Detection of hepatitis E virus nucleic acid in blood or tissue specimens

OR

Isolation of hepatitis E virus in cell culture, with confirmation by a nucleic acid detection test

OR

Seroconversion of IgG or total antibody titres against hepatitis E virus

OR

A four-fold or greater rise in IgG or total antibody titres against hepatitis E virus during or after a compatible clinical illness

OR

Detection of IgM directed against hepatitis E virus in a single specimen.

Date of last review 19 November 2015

Human immunodeficiency virus (HIV) infection

Detection of HIV by NAT

OR

Detection of HIV by Western Blot testing

OR

Detection of HIV p24 antigen, with neutralisation

OR

Isolation of HIV.

Date of last review 7 July 2016

Influenza

Isolation of influenza virus by culture from an appropriate respiratory tract specimen

OR

Detection of influenza virus by NAT from an appropriate respiratory tract specimen

OR

Detection of influenza antigen from an appropriate respiratory tract specimen

OR

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

Date of last review 15 December 2021

Invasive Group A Streptococcal disease

Isolation of group A Streptococcus (*Streptococcus pyogenes*) by culture from a normally sterile site e.g. blood or cerebrospinal fluid or joint, pleural or pericardial fluid

OR

Detection of Group A Streptococci (*Streptococcus pyogenes*) by nucleic acid testing from a normally sterile site.

OR

Isolation or detection of Group A Streptococci (*Streptococcus pyogenes*) from a non-sterile site, such as a deep wound or deep tissue specimen, surgical biopsy, or post-mortem specimen, immediately at or in proximity to the site of infection.

Date of last review 23 June 2021

Japanese encephalitis

Request for Japanese encephalitis testing is notifiable

Isolation of the specified flavivirus

OR

Detection of specified flavivirus nucleic material by NAT

OR

IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre in paired sera to specified flavivirus

OR

Detection of specified flavivirus specific IgM antibodies.

Date of last review 20 March 2014

Lead exposure

Demonstration of a blood lead level of 5µg/dL (0.24µmol/L) or more in any person.

Date of last review 19 November 2015

Legionellosis

Isolation of Legionella

OR

Presence of Legionella urinary antigen

OR

Seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre to Legionella

OR

Single high antibody titre to Legionella (as determined by the testing laboratory)

OR

Detection of Legionella by NAT.

Date of last review 2 November 2017

Leprosy (Hansen's disease)

Detection of Mycobacterium leprae by NAT from the ear lobe or other relevant specimens

OR

Demonstration of characteristic acid-fast bacilli in slit skin smears and biopsies prepared from the ear lobe or other relevant sites

OR

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.

Date of last review 20 March 2014

Leptospirosis

Isolation of pathogenic *Leptospira* species

OR

A positive *Leptospira* EIA IgM result

OR

Fourfold or greater increase in leptospirosis microscopic agglutination test (MAT) titre between acute and convalescent phase sera obtained at least two weeks apart and preferably conducted at the same laboratory

OR

A single high leptospirosis microscopic agglutination test (MAT) titre greater than or equal to 400 against a pathogenic species

OR

Detection of pathogenic *Leptospira* sp. by NAT.

Date of last review 15 December 2021

Listeriosis

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

Date of last review 1 November 2018

Lymphogranuloma venereum

Isolation of *Chlamydia trachomatis* serovars L1, L2 or L3

OR

Detection of *Chlamydia trachomatis* serovars L1, L2 or L3 by NAT.

Date of last review 20 March 2014

Lyssaviruses (including Australian Bat lyssavirus (ABLV), lyssavirus unspecified, and rabies)

Request for lyssavirus testing is notifiable.

Isolation of lyssavirus (including ABLV and rabies) confirmed by sequence analysis

OR

Detection of lyssavirus (including ABLV and rabies) by NAT

OR

IgG seroconversion or a fourfold or greater rise in titre in paired sera to lyssavirus (including ABLV and rabies)

OR

Detection of lyssavirus (including ABLV and rabies) specific IgM

OR

Demonstration of rabies-specific antibody in CSF

OR

Positive fluorescent antibody test result for lyssaviral antigen

Date of last review 21 May 2015

Malaria

Detection and specific identification of malaria parasites by microscopy on blood films with confirmation of species

OR

Detection of Plasmodium species by NAT

OR

A positive result with a rapid immunodiagnostic (immunochromatography or antigen detection EIA) test.

Date of last review 20 March 2014

Measles

Isolation of measles virus

OR

Detection of measles virus antigen or nucleic acid

OR

Demonstration of measles specific IgM antibody

OR

IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre in paired sera to measles virus.

Date of last review 4 July 2019

Melioidosis

Isolation of *Burkholderia pseudomallei* from any site

OR

Detection of *Burkholderia pseudomallei* by NAT from any site.

Date of last review 20 March 2014

Meningococcal disease (invasive)

Isolation of *Neisseria meningitidis* from a normally sterile site or eye/conjunctiva

OR

Detection of specific meningococcal DNA sequences in a specimen from a normally sterile site by NAT

OR

Detection of Gram-negative diplococci in Gram's stain of specimen from a normally sterile site or from a suspicious skin lesion

OR

High titre IgM or significant rise in IgM or IgG titres to outer membrane protein antigens of *N. meningitidis*.

Date of last review 2 November 2017

Mpox (Monkeypox)

Request for mpox virus testing is notifiable

Detection of mpox virus by NAT

OR

Detection of mpox virus-specific sequences using next generation sequencing

OR

Isolation of mpox virus

OR

Detection of orthopoxvirus by NAT

OR

Detection of orthopoxvirus by electron microscopy in the absence of exposure to another orthopoxvirus.

Date of last review 21 June 2022

Mumps

Isolation of mumps virus

OR

Detection of mumps virus by NAT

OR

IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in paired serum titre

OR

Demonstration of mumps specific IgM.

Date of last review 15 December 2021

Murray Valley Encephalitis virus infection

Isolation of Murray Valley encephalitis virus

OR

Detection of Murray Valley encephalitis virus by NAT

OR

IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre to Murray Valley encephalitis virus

OR

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

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

Date of last review 2 November 2017

Nontuberculosis Mycobacterial infection

Isolation or detection by NAT of *M. ulcerans* from any site

OR

Isolation or detection by NAT of other nontuberculous mycobacteria from any site other than sputum or urine

OR

Isolation of any nontuberculous mycobacteria from multiple samples of sputum or urine

OR

Detection of acid fast bacilli by histology.

Date of last review 20 March 2014

Pertussis

Isolation of *Bordetella pertussis*

OR

Detection of *B. pertussis* by NAT

OR

Seroconversion in paired sera for *B. pertussis* using whole cell or specific *B. pertussis* antigen(s) in the absence of recent pertussis vaccination

OR

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

OR

Single high IgA titre to Whole Cell or specific *B. pertussis* antigens.

Date of last review 20 March 2014

Plague

Request for testing for plague is notifiable

Isolation of *Yersinia pestis*

OR

Demonstration of a fourfold or greater rise in *Y. pestis* antibody titre

OR

Detection of *Y. pestis* by NAT.

Date of last review 14 April 2014

Pneumococcal disease (invasive)

Isolation of *Streptococcus pneumoniae* from a normally sterile site,

OR

Detection of *S. pneumoniae* from a normally sterile site by NAT.

Date of last review 20 March 2014

Poliovirus infection

Request for poliomyelitis virus testing is notifiable

Note: all findings must be confirmed in the WHO Western Pacific Region Reference laboratory.

Wild-type poliomyelitis:

Isolation of wild-type virus

OR

Detection of wild-type virus by NAT.

Vaccine-associated poliomyelitis:

Isolation of Sabin-like poliovirus

OR

Detection of Sabin-like poliovirus by NAT.

NB. FSS may perform enterovirus NAT +/- sequencing but all requests for polio virus testing are referred directly to the National Enterovirus Reference Laboratory

Date of last review 10 November 2016

Psittacosis

Seroconversion or fourfold or greater rise in immunoglobulin G (IgG) antibody by microimmunofluorescence (MIF) against *Chlamydia psittaci* between acute and convalescent sera (collected at least two weeks later) tested in parallel¹

OR

Detection of *C. psittaci* by NAT or culture

OR

Detection of IgM or single high IgG antibody titre² to *C. psittaci* by MIF

OR

A single high *C. psittaci* complement fixation (CF) antibody titre²

OR

Seroconversion or fourfold or greater rise in IgG antibody by CF against *Chlamydia psittaci* between acute and convalescent sera (collected at least two weeks later) tested in parallel.¹

Date of last review 5 July 2018

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 *Chlamydia 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

Q Fever

Isolation of *Coxiella burnetii* from a clinical specimen

OR

Detection of *C. burnetii* by NAT

OR

Seroconversion (significant increase), or fourfold or greater increase in antibody level to Phase II or Phase I antigens in paired sera

OR

Detection of *C. burnetii* specific IgM

OR

Demonstration of a raised serum complement fixation antibody titre ($\geq 1/64$) to phase II antigen of *C. burnetii*.

Date of last review 14 March 2019

Respiratory Syncytial Virus

Isolation of respiratory syncytial virus by cell culture

OR

Detection of respiratory syncytial virus by nucleic acid testing

OR

Detection of respiratory syncytial virus antigen

OR

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

Date of last review 23 June 2021

Ross River virus infection

Isolation of Ross River virus

OR

Detection of Ross River virus nucleic material by NAT **OR**

IgG seroconversion or a significant increase in IgG antibody level (e.g. fourfold or greater rise in titre) to Ross River virus

OR

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

Date of last review 10 March 2016

Rotavirus

Detection of rotavirus nucleic material by NAT

OR

Detection of rotavirus antigen.

Date of last review 5 July 2018

Rubella (including congenital rubella infection)

Isolation of rubella virus

OR

Detection of rubella virus by NAT

OR

Demonstration of rubella-specific IgM antibody

OR

IgG seroconversion or a significant increase in antibody level, or a fourfold or greater rise in titre in paired sera to rubella virus.

Date of last review 4 July 2019

Salmonellosis

Isolation or detection of *Salmonella* species (excluding *S. Typhi* and *S. Paratyphi*) from any clinical specimen

Date of last review 10 March 2016

Shiga toxin-producing *Escherichia coli* (STEC) infection

Isolation of Shiga toxin-producing *Escherichia coli* from faeces,

OR

Identification of the gene/s associated with the production of Shiga toxin or Vero toxin in *E. coli* by NAT on isolate or faeces.

Date of last review 10 November 2016

Shigellosis

Isolation of *Shigella* species,

OR

Detection of *Shigella* species by NAT.

Date of last review 5 July 2018

Smallpox

Request for smallpox virus testing is notifiable

Isolation of variola virus, confirmed at the Victorian Infectious Diseases Reference Laboratory (VIDRL)

OR

Detection of variola virus by NAT, confirmed at VIDRL

OR

Detection of a poxvirus resembling variola virus by electron microscopy

OR

Isolation of variola virus pending confirmation

OR

Detection of variola virus by NAT pending confirmation.

Date of last review 14 March 2019

Syphilis (including congenital syphilis)

Detection of *Treponema pallidum* by NAT

OR

Reactive specific treponemal antibody tests

OR

A reactive VDRL test on CSF.

Date of last review 1 November 2018

Tetanus

Isolation of *Clostridium tetani* from a wound or blood sample in a compatible clinical setting.

Date of last review 15 March 2018

Tuberculosis

Isolation of *Mycobacterium tuberculosis* complex, including (*M. tuberculosis*, *M. africanum* or *M. bovis*) from a clinical specimen,

OR

Detection of tuberculosis complex by NAT,

OR

Detection of acid fast bacilli by histology,

OR

Histology consistent with active tuberculosis,

OR

Smear-positive for acid fast bacilli on a respiratory specimen or specimen from a normally sterile site.

Date of last review 20 March 2014

Tularaemia

Request for testing for tularaemia is notifiable

Isolation and detection of *Francisella tularensis*,

OR

Isolation of a Gram-negative bacillus suggestive of *F. tularensis* whether or not the organism identity and pathogenicity have not yet been confirmed by a reference laboratory,

OR

Detection of *F. tularensis* by NAT.

Date of last review 14 April 2014

Typhoid / Paratyphoid

Isolation or detection of *Salmonella* Typhi or *Salmonella* Paratyphi serotype A, B or C from any clinical specimen.

Date of last review 2 November 2017

Varicella

Isolation of varicella zoster virus,

OR

Detection of varicella virus by NAT,

OR

IgG seroconversion or a significant increase in antibody level, such as a fourfold or greater rise in titre to varicella-zoster virus (with paired sera tested in parallel).

Date of last review 15 March 2018

Viral haemorrhagic fevers (Crimean-Congo fever, Ebola virus disease, Lassa fever and Marburg virus disease)

Request for testing for a viral haemorrhagic fever is notifiable

Note: For EVD, all findings require confirmation by VIDRL, Melbourne, Centres for Disease Control, Atlanta, or National Institute of Virology, Johannesburg.

Isolation of specific virus,

OR

Detection of specific virus by NAT, antigen detection assay or electron microscopy,

OR

IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre to specific virus,

OR

Detection of IgM antibody to one of the specific viruses.

Date of last review 4 July 2019

West Nile / Kunjin

Isolation of the specified flavivirus,

OR

Detection of specified flaviviral nucleic material by NAT,

OR

IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre in paired sera to specified flavivirus,

OR

Detection of specified flavivirus specified IgM antibodies.

Date of last review 20 March 2104

Yellow Fever

Request for yellow fever testing is notifiable

Isolation of yellow fever virus,

OR

Detection of yellow fever virus by NAT,

OR

IgG or IgM seroconversion or a fourfold or greater rise in titre in paired sera to yellow fever virus,

OR

Detection of yellow fever virus antigen in tissues by immunohistochemistry,

OR

Yellow fever virus-specific IgM detected.

Date of last review 20 March 2104

Yersiniosis

Isolation of *Yersinia enterocolitica* or *Yersinia pseudotuberculosis*,

OR

Detection of *Y. enterocolitica* or *Y. pseudotuberculosis* by NAT.

Date of last review 20 March 2104

Note: currently the NAT is not distinguishing between pathogenic and non-pathogenic strains of *Y. enterocolitica*. With culture, this can be decided in a reference lab. This definition will be reviewed once cultures are phased out.

Zika virus infection

Isolation ZIKV virus,

OR

Detection of ZIKV by NAT,

OR

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

OR

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

OR

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

NB

- 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

Date of last review 10 November 2016