

Appendix B: Provincial Case Definitions for Diseases of Public Health Significance

**Disease: Acquired Immunodeficiency Syndrome
(AIDS)**

Effective: February 2019

Acquired Immunodeficiency Syndrome (AIDS)

1.0 Provincial Reporting

Confirmed cases of disease

2.0 Type of Surveillance

Case-by-case

3.0 Case Classification

3.1 Confirmed Case of Human Immunodeficiency Virus (HIV) Infection

Children < 18 months:

- Detection of proviral deoxyribonucleic acid (DNA) by polymerase chain reaction (PCR) or p24 antigen (p24 Ag) in two separate samples collected one month and four months after delivery

OR

- Isolation of HIV in culture

Adults, Adolescents and Children >18 months:

- Detection of HIV antibody with confirmation

OR

- Detection of p24 antigen

OR

- Isolation of HIV in culture

3.2 Confirmed Case of Acquired Immunodeficiency Syndrome (AIDS)

- A positive test for HIV infection with confirmation
- AND**
- Definitive diagnosis of one or more AIDS indicative diseases (See Section 5.2)

4.0 Laboratory Evidence

4.1 Laboratory Confirmation

Any of the following will constitute a confirmed case of HIV:

Children < 18 months (on 2 separate samples):

- Positive for proviral DNA by PCR
- Positive for HIV p24 Ag (>1 months)
- Positive HIV culture

Adults, Adolescents and Children >18 months:

- Positive for HIV-1, HIV-2 antibody with confirmation for HIV antibody or virus (e.g. immunochromatographic test, immunofluorescent technique, or a ribonucleic acid [RNA] assay)
- Positive for HIV p24 Ag
- Positive HIV culture

4.2 Approved/Validated Tests

- Antibody detection: Tests for anti-HIV-1, anti-HIV-2 antibodies (chemiluminescent microparticle immunoassay [CMIA], enzyme immunoassay [EIA], line immunoassay [LIA], immunochromatographic test, radioimmunoassay [RIPA], point-of-care [POC]/rapid tests)
- Antigen detection: HIV p24 Ag test
- Proviral DNA polymerase chain reaction (PCR) assay
- Standard HIV culture

4.3 Indications and Limitations

- In children <18 months of age born to HIV positive mothers, all positive results should be repeated with a second specimen for confirmation. All negative tests should be repeated at 6-12 months to verify negative status.

5.0 Clinical Evidence

5.1 HIV

Primary Acute infection- may develop within a few weeks after exposure to the virus and last up to two weeks. If present, symptoms generally appear 2 to 6 weeks after exposure and include: fever, arthralgia, myalgia, rash, sore throat, fatigue, headache, oral ulcers and/or genital ulcers, weight loss, nausea, vomiting or diarrhea.

Chronic Asymptomatic infection- may be free of clinical signs or symptoms, though generalized lymphadenopathy and/or thrombocytopenia may be present. Viral replication and plasma viremia are more controlled by the immune response represented by the level of CD4+ T cells. Disease progression varies but can last years.

Chronic Symptomatic infection- the disease is characterized by high levels of viral replication, plasma viremia, a depressed CD4+ T cell count, and shedding from mucosal sites. Symptoms include oral hairy leukoplakia, unexplained fever, fatigue or lethargy, unexplained weight loss, chronic diarrhea, unexplained lymphadenopathy, cervical dysplasia, dyspnea and dry cough, loss of vision, recurrent or chronic candida (oral, vaginal), dysphagia, red/purple nodular or mucosal lesions, herpes zoster (especially if severe, multidermatomal or disseminated), unexplained “anemia of chronic disease”, increased frequency or severity of mucocutaneous herpes simplex infection.

5.2 AIDS Indicative Diseases for Adult and Pediatric Cases

- Bacterial pneumonia (recurrent)*
- Candidiasis (bronchi, trachea or lungs)
- Candidiasis (esophageal)*
- Cervical cancer (invasive)
- Coccidioidomycosis (disseminated or extrapulmonary)
- Cryptococcosis (extrapulmonary)
- Cryptosporidiosis chronic intestinal (> 1 month duration)
- Cytomegalovirus diseases (other than in liver, spleen or nodes)
- Cytomegalovirus retinitis (with loss of vision)*
- Encephalopathy, HIV-related (dementia)
- *Herpes simplex*: chronic ulcer(s) (> 1 month duration) or bronchitis, pneumonitis or esophagitis
- Histoplasmosis (disseminated or extrapulmonary)*
- Isosporiasis, chronic intestinal (> 1 month duration)*
- Kaposi's sarcoma*
- Lymphoma, Burkitt's (or equivalent term)
- Lymphoma, immunoblastic (or equivalent term)
- Lymphoma (primary in brain)
- *Mycobacterium avium* complex or *M. kansasii* (disseminated or extrapulmonary)*
- *Mycobacterium* of other species or unidentified species*
- *M. tuberculosis* (disseminated or extrapulmonary)*
- *M. tuberculosis* (pulmonary)*
- *Pneumocystis jirovecii* pneumonia*.[†]
- Progressive multifocal leukoencephalopathy
- *Salmonella* septicemia (recurrent)
- Toxoplasmosis of brain*[†]
- Wasting syndrome due to HIV

5.3 AIDS Indicative Diseases that only apply to Pediatric Cases(< 15 years old)

- Bacterial infections (multiple or recurrent, excluding recurrent bacterial pneumonia)
- Lymphoid interstitial pneumonia and/or pulmonary lymphoid hyperplasia*

6.0 ICD 10 Code(s)

B20 HIV disease resulting in infectious and parasitic diseases

B21 HIV disease resulting in malignant neoplasms

B22 HIV disease resulting in other specified diseases

* These conditions may be diagnosed presumptively; otherwise, definitive diagnosis is required.

[†] Formerly known as *Pneumocystis carinii*.

B23 HIV disease resulting in other conditions

B24 Unspecified HIV disease

7.0 Sources

Government of Canada. For Health Professionals: HIV and AIDS [Internet]. Ottawa, ON: Her Majesty the Queen in Right of Canada; 2017 [updated December 4, 2017; cited June 4, 2018]. Available from: <https://www.canada.ca/en/public-health/services/diseases/hiv-aids/health-professionals-hiv-aids.html#s2>

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8.0 Document History

Table 1: History of Revisions

Revision Date	Document Section	Description of Revisions
December 2014	General	New template. Nucleic acid amplification test abbreviation “(NAT)” replaced with “(NAAT)” throughout document. Section 8.0 title changed from “References” to “Sources”. Sections 9.0 Document History added.

Revision Date	Document Section	Description of Revisions
December 2014	3.1 Confirmed Case of Human Immunodeficiency Virus (HIV) Infection	First bullet under Children < 18 months, addition of "OR Isolation of HIV in culture". Under Adults, Adolescents and Children >18 months, addition of "OR Isolation of HIV in culture".
December 2014	5.1 HIV	First paragraph, addition of "may develop within a few weeks after exposure to virus and last up to two weeks". Second paragraph, "chronic candida (oral, esophageal, vaginal)" changed to "chronic candida (oral, vaginal)". Second paragraph, deletion of "encephalopathy". Second paragraph, addition of "(especially if severe, multidermatomal or disseminated)" and addition of "mucocutaneous".
December 2014	5.2 AIDS Indicative Diseases for Adults and Adolescents > 15 years of Age	" <i>Pneumocystis carinii</i> " replaced with " <i>Pneumocystis jirovecii</i> " and associated note replaced with " <i>formerly known as Pneumocystis carinii</i> ".
December 2014	8.0 Sources	Entire section updated.
February 2019	General	Minor updates were made to support the regulation change to Diseases of Public Health Significance. Section 8.0 was deleted.
February 2019	5.0 Clinical Evidence	Entire section updated.
February 2019	6.0 ICD 10 Code(s)	Entire section updated.

