

Case Definition

Confirmed Case:

Laboratory confirmation of infection in a patient with or without clinical evidence:

- Isolation of *Cryptococcus* from a clinical specimen, with subsequent species-level identification of *Cryptococcus gattii* (*C. gattii*) by MALDI-TOF or NAAT;
OR
- Species-level identification of *C. gattii* directly from a primary clinical specimen by NAAT.

Clinical Evidence

C. gattii infection presents with varied clinical features and symptoms. For detailed information on clinical presentation, please refer to the *C. gattii* chapter in the Nova Scotia Communicable Disease Manual.

Laboratory Comments

Confirmation of *C. gattii* requires isolation of the organism with species-level identification. Please refer to the *C. gattii* communicable disease chapter, diagnosis testing section for additional information.

Reinfection

Reinfection with *C. gattii* is unusual. Subsequent episodes of illness in a previously diagnosed individual are more likely to represent relapse or ongoing infection rather than a new infection. For the purposes of public health surveillance and case counting, an individual is typically counted as a case only once.

Hospitalized Case

A confirmed case who was admitted to hospital in which the disease under investigation caused or contributed to the hospitalization.

Deceased Case

A death resulting from *C. gattii* in a confirmed case. This disease does not need to be the primary cause of death.¹

Outbreak Definition

The declaration of an outbreak is at the discretion of the Medical Officer of Health (MOH).²

An outbreak may be considered when two or more confirmed cases of *C. gattii* infection are identified with potential links to a common source or setting.

Factors to consider when declaring an outbreak:

- The geographical distribution of disease (province/zone/cluster)

¹ This includes deaths identified through death certificates that list *C. gattii* as an immediate cause of death, an antecedent cause giving rise to the immediate cause, or another significant condition contributing to, but not causally related to, the immediate cause.

² Exposure to certain environmental factors, such as decaying wood, soil in forested areas, or other specific trees known to harbor *C. gattii*, increases the risk of infection.

- Whether cases are linked to common environmental exposure (e.g., specific forested areas)
- Case onsets clustered within a reasonable time frame, typically within a 12-month period.

Reporting Requirements

Report confirmed cases to DHW Public Health Surveillance via Panorama.

Data Entry

See Appendix I for required DHW Public Health Surveillance minimum dataset elements to be entered into Panorama

Appendix I: DHW Public Health Surveillance Required Minimum Data Set for *C. gattii*

Panorama Variable	Description	Surveillance Rationale
Client details		
First Name	First name of case	
Last Name	Last name of case	
Date of Birth	Date case was born	Allows for demographic analysis.
Gender	Field is called gender in Panorama but may refer to sex or gender.	Allows for demographic analysis.
HCN	Health card number of case	Allows for linkage with administrative health data.
Address, including postal code	Address where case resides	Allows for geographic analysis.
Investigation details		
Disease	Disease under investigation	
Microorganism	Name of microorganism causing the specific disease	
Classification	Case classification. Do not close case as a PUI.	Used for counting of cases in surveillance reporting.
Disposition	Case disposition	Allows for exclusion of cases as applicable for surveillance reporting.
Responsible organization	Local public health unit	Allows for geographical analysis when address information is unknown.
Client address at time of investigation	Where client was residing at time of disease event, including postal code	Allows for geographical analysis.
Laboratory -- only if manually entering lab results		
Laboratory ID/Accession Number	ID assigned by the PPHLN	Allows for data linkage.
Test Name	Type of test carried out	Used for analysis of laboratory data.
Specimen Type	Type of specimen collected: stool, blood, etc.	Allows for analysis by specimen type.
Specimen Site	Site of specimen collected	Allows for analysis by specimen site.
Specimen Collection Date	Date when the specimen was collected	Used to place disease event in time, allows for accurate epidemiological analysis.
Result Name	Test result description	Used for analysis of laboratory data.
Result Status	Status of test result (e.g., preliminary, final)	Used for analysis of laboratory data.
Interpreted Result	Laboratory interpretation of test performed	Used for analysis of laboratory data.
Disease	Disease for which testing carried out	Used for analysis of laboratory data.
Microorganism	Name of microorganism causing the specific disease	Used for analysis of laboratory data.

Panorama Variable	Description	Surveillance Rationale
Signs and symptoms (include onset dates)		
Enter onset date for each symptom.		Used to place disease event in time, allows for accurate epidemiological analysis.
Altered mental status	Exhibited during illness	Allows for analysis of manifestation of disease.
Chest pain	Exhibited during illness	Allows for analysis of manifestation of disease.
Cough	Exhibited during illness	Allows for analysis of manifestation of disease.
Dyspnea	Exhibited during illness	Allows for analysis of manifestation of disease.
Headache	Exhibited during illness	Allows for analysis of manifestation of disease.
Hemoptysis	Exhibited during illness	Allows for analysis of manifestation of disease.
Neck stiffness	Exhibited during illness	Allows for analysis of manifestation of disease.
Visual disturbances	Exhibited during illness	Allows for analysis of manifestation of disease.
Seizures	Exhibited during illness	Allows for analysis of manifestation of disease.
Vomiting	Exhibited during illness	Allows for analysis of manifestation of disease.
Outcomes		
Enter all case outcomes related to disease under investigation.	Enter all outcomes investigator becomes aware of during the course of investigation. All cases must have at least one outcome entered.	Allows for analysis of severity of illness.
Risk Factors		
Behaviour - Smoking/vaping/use of smoking paraphernalia	Does the case currently smoke, vape, or use smoking-related paraphernalia?	Smoking/vaping may increase susceptibility to and severity of <i>C. gattii</i> disease.
Exposure - Any of the acquisition risks identified occurred while outside of Canada	Did any of the identified exposure risks occur outside of Canada, including related to travel or recent immigration?	Used to evaluate whether disease was acquired outside the country.
Exposure - Any of the acquisition risks identified occurred while outside of NS, but within Canada	Did any of the identified exposure risks occur outside of Nova Scotia, but within Canada, including related to travel or recent immigration?	Used to evaluate whether disease was acquired outside the province.
Exposure - Engaging outdoors	In the 12 months prior to symptom onset or diagnosis (use earlier date), did the case spend significant time outdoors in forested, wooded, or natural environments (e.g., walking or recreational activities)?	Captures general environmental exposure.

Panorama Variable	Description	Surveillance Rationale
Exposure - History of residence/travel in endemic ³ country or endemic area within Canada	In the 12 months prior to symptom onset or diagnosis (use earlier date), did the case travel to or reside in a country or area known to be endemic for <i>C. gattii</i> ?	Used to determine whether infection may have been acquired in a known endemic area.
Exposure - Occupational - occupationally acquired infection	In the 12 months prior to symptom onset or diagnosis (use earlier date), did the case's occupation involve regular or intense exposure to soil, decaying wood, tree debris, or forested environments that could aerosolize fungal spores?	Used to assess potential occupational exposure to <i>C. gattii</i> .
Exposure - Outdoor - gardening or other contact with soil/sand	In the 12 months prior to symptom onset or diagnosis (use earlier date), did the case engage in gardening, landscaping, or other activities involving direct contact with soil or sand?	Direct contact with soil or sand can aerosolize spores, representing a potential acquisition pathway for <i>C. gattii</i> .
Medical - Chronic lung disease (excluding asthma)	Does the case have a history of chronic lung disease (excluding asthma)?	Pre-existing lung disease may increase susceptibility to and severity of <i>C. gattii</i> disease.
Medical - Chronic renal disease/dialysis	Does the case have chronic kidney disease or require dialysis?	Chronic renal disease may increase susceptibility to and severity of <i>C. gattii</i> disease.
Medical - HIV positive	Is the case living with HIV?	Provides data on <i>C. gattii</i> among people living with HIV, a key immunocompromised population.
Medical - Underlying conditions / medications that suppress the immune system (e.g. diabetes, cancer, steroids)	Does the case have any underlying conditions or use any medications that suppress the immune system?	Provides data on <i>C.gattii</i> among immunocompromised people.

Appendix II: Updates to *C. gattii* surveillance guidelines

Date	Updates
April 2026	First version of <i>C. gattii</i> surveillance guidelines.

³ Endemic areas for *C. gattii* are regions where the fungus occurs naturally and causes infections without travel-related exposure; these include British Columbia, Canada (especially Vancouver Island and the Lower Mainland), the Pacific Northwest of the United States (including Washington and Oregon), Australia (particularly the Northern Territory and Queensland), Papua New Guinea, Brazil (notably the northern and northeastern regions), and parts of central and southern Africa.