



Health Care Provider Advisory - Blastomycosis

Please be reminded of the possibility of Blastomycosis infection in the region. Blastomycosis has been a reportable disease under the *Health Protection and Promotion Act* in Ontario since March 2018. In the 4 years since being reportable, an average of 27% of annual cases have been diagnosed in **January - March** (Source: Public Health Ontario QueryaC).

Northwestern Health Unit's catchment area has the highest annual rate of Blastomycosis in Ontario. Between 2018 and 2021, the annual rate ranged from 15-43 cases per 100,000 while the rest of Ontario's health unit jurisdictions ranged from 0-6 cases per 100,000 (except one large cluster in northeastern Ontario in 2021), and the annual rate in Canada is 0.62 cases per 100,000.

Health care providers who are newer to Northwestern Health Unit's catchment area may be unfamiliar with Blastomycosis because it is so uncommon elsewhere.

What is Blastomycosis?

Blastomycosis is an infection caused by the dimorphic fungus *Blastomyces dermatitidis* or *Blastomyces gilchristii*. The fungus is most common in northwestern Ontario, Manitoba, along the Great Lakes and St. Lawrence Seaway, and in parts of the U.S.A., and is rare in other areas. It is most common in acidic, moist soil; for example, areas with rotting organic material such as fallen trees, and old wooden structures.

How is it acquired?

Blastomycosis is typically acquired through inhalation of airborne spores. Primary cutaneous blastomycosis is uncommon but can result from a traumatic puncture of the skin. Blastomycosis is NOT transmitted from person to person or from infected animals to people. There is no way to test soil or an environment for *B. dermatitidis* or *B. gilchristii* and no way to eradicate the fungus from the environment. Not all who are exposed to B. dermatitidis or B. gilchristii even in the same location or at the same event will become infected.

Symptoms and testing

Illness ranges from self-limiting, subclinical infection to acute or chronic pneumonia or disseminated infection, and untreated infection can cause death. Incubation ranges from weeks to months after exposure to the fungus, with a median of 45 days. Blastomycosis can mimic other respiratory and disseminated infections and diseases and will not be identified through viral or bacterial testing; specific fungal testing is required for diagnosis.



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Blastomycosis symptoms can seem to improve and then worsen. That means other treatments may seem to work temporarily, which can delay treatment and increase the risk of negative outcomes.

Early diagnosis and appropriate antifungal treatment is the most important mechanism for preventing morbidity and mortality related to Blastomycosis.

If you missed it, you can watch the recording of the Regional Blastomycosis Backgrounder for Health Care Professionals webinar on our <u>Blastomycosis Information for Health Care Providers page</u>.

For more information, visit Health Canada's page on Blastomycosis for health professionals.

Please share this information with appropriate contacts within your organization.

For more information, please contact: **Dr. Kit Young Hoon**

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