

Blastomycosis

I. IDENTIFICATION

A. CLINICAL DESCRIPTION: An acute or chronic illness caused by inhalation of spores of the dimorphic fungus *Blastomyces dermatitidis* that primarily affects the lungs and skin, although the clinical presentation may be variable (Table 1).

Table 1. Types & Clinical Presentation in Blastomycosis Patients.

Types of Disease	Clinical Presentation
Asymptomatic	May occur in about 50% of infections.
Acute Pulmonary	Radiologic presentations include lobar or segmental consolidation that mimics a bacterial pneumonia. Symptoms may be highly non-specific mimicking influenza or acute bacterial infection with abrupt onset of cough, fever, chills, myalgias and arthralgias.
Chronic Pulmonary	Radiologic presentations include lobar infiltrates with or without cavitation, mass mimicking bronchogenic carcinoma, or fibronodular infiltrates. This form cannot be differentiated clinically from any other form of chronic lung disease. Symptoms may be suggestive of chronic TB or histoplasmosis. Symptoms may include cough, weight loss, chest pain, night sweats, low-grade fever, skin lesions and hemoptysis.
Skin Disease	Skin lesions begin as a small papulopustular lesion that increases in size. The central part of the lesion is often encrusted. Lesions usually occur in areas of the body (particularly facial areas) exposed to the sun.
Subcutaneous Nodules	Cold abscesses commonly associated with systemic manifestations. They are frequently associated with extra-pulmonary disease or multiple organ involvement.
Bone & Joint Infection	Seen in 10 to 40% of patients and usually lung disease present. Most commonly affect long bones, ribs and vertebrae. Lesions are usually osteolytic and well delineated.
Genitourinary Tract Infection	Involvement in 10 to 30% of cases and affects the prostate, epididymis, seminal vesicle, testis and kidney. Pain, swelling and tenderness of the scrotum may occur.
Others	Almost any other organ can be involved, including the central nervous system, thyroid, pericardium, adrenal glands and gastrointestinal tract.

B. REPORTING CRITERIA: Clinical diagnosis with laboratory confirmation.

C. LABORATORY CRITERIA FOR CONFIRMATION:

- Isolation of *B. dermatitidis* from any sputum, bronchial washing or skin lesions, **OR**
- Visualization of broad-based budding yeast from an appropriate clinical specimen.

D. WISCONSIN CASE DEFINITION: A clinically compatible illness that is laboratory confirmed.

II. ACTIONS REQUIRED / PREVENTION MEASURES

A. WISCONSIN DISEASE SURVEILLANCE CATEGORY II: Report to the patient's local health officer on an Acute and Communicable Disease Case Report or other means within 72 hours of the identification of a case or suspected case.

B. EPIDEMIOLOGY REPORTS REQUESTED:

- Acute and Communicable Diseases Case Report
- Blastomycosis Worksheet

C. PUBLIC HEALTH INTERVENTIONS:

- Cluster investigation if more than one case occurs in close geographic area within a short period of time. Consult with the BCDP staff for consultation on cluster investigations.
- Educate public about signs and symptoms of blastomycosis and importance of seeking medical evaluation and treatment for illness, especially if they reside in or visit endemic areas in Wisconsin.

III. CONTACTS FOR CONSULTATION

A. BCDER / COMMUNICABLE DISEASE EPIDEMIOLOGY SECTION: (608) 261-6387

B. WSLH / MYCOLOGY LABORATORY: (608) 224-6261

IV. RELATED REFERENCES

1. Heymann DL, ed. BLASTOMYCOSIS. In: *Control of Communicable Diseases Manual*. 18th ed. Washington, DC: American Public Health Association, 2004: 67-69.

2. Al-Doory Y and DiSalvo AF (eds) *Blastomycosis* Plenum Publishing Corporation, New York, NY, 1992.