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Blastomycosis  
2020 Case Definition  
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2020 Case Definition  
NOTE:  
A surveillance case definition is a set of uniform criteria used to define a disease for public health surveillance. Surveillance case definitions enable public health officials to classify and count cases consistently across reporting jurisdictions. Surveillance case definitions are not intended to be used by healthcare providers for making a clinical diagnosis or determining how to meet an individual patient’s health needs.  
CSTE Position Statement(s)  
19-ID-02  
Background  
Blastomycosis, caused by the dimorphic fungus  
Blastomyces  
(most commonly the species (spp.)  
B. dermatitidis  
and  
B. gilchristii  
), can cause a spectrum of disease ranging from subclinical to influenza-like illness to disseminated infection. It is acquired by inhaling airborne spores from the environment, particularly in areas with moist soil and decomposing organic material near fresh water (1, 2). Most symptomatic infections likely involve self-limited pulmonary disease, although these infections are rarely diagnosed. Disseminated infections and life-threatening pulmonary disease are a major concern with blastomycosis, and a better understanding of the disease’s epidemiology could lead to improved primary and secondary prevention measures. In the United States, cases of blastomycosis occur primarily in midwestern, south-central, and southeastern states, particularly areas surrounding the Ohio and Mississippi River valleys, the Great Lakes, and the Saint Lawrence River (3, 4). However, the geographic distribution of blastomycosis remains poorly understood and can be highly focal even within endemic areas. Additional pockets of disease likely occur outside of these regions.  
Clinical Criteria  
Clinical presentation should include:  
At least two of the following findings:  
Cough  
Fever or chills or night sweats  
Shortness of breath  
Poor appetite or weight loss  
Myalgia (muscle pain)  
Arthralgia (joint pain) or bone pain  
Fatigue  
OR  
At least one of the following findings determined to be likely attributed to  
Blastomyces  
infection:  
Abnormal lung findings on chest imaging (e.g., pulmonary infiltrates, nodule, or mass-like lesions)  
Single or multiple skin lesions (often verrucous or ulcerated)  
Bone or joint abnormality (e.g., osteomyelitis, pathologic fracture)  
Meningitis, encephalitis, or focal brain lesion  
Abscess, granuloma, or lesion in other body system (e.g., genitourinary, ocular)  
Laboratory Criteria  
Confirmatory laboratory evidence\*:  
Culture of  
Blastomyces  
spp. from a clinical specimen  
Identification of characteristic  
Blastomyces  
spp. yeast in tissue or body fluid by histopathology  
Identification of characteristic  
Blastomyces  
spp. yeast in tissue or body fluid by cytopathology (i.e., fungal smear)  
Demonstration of  
Blastomyces  
-specific nucleic acid or proteins in a clinical specimen or isolate using a validated molecular assay (e.g., Polymerase Chain Reaction (PCR), DNA Probe, Matrix-Assisted Laser Desorption/Ionization-Time Of Flight (MALDI-TOF))  
Presumptive laboratory evidence\*:  
Detection of  
Blastomyces  
antigen at or above the minimum level of quantification in serum, urine, or other body fluid by enzyme immunoassay (EIA) test\*\*  
Detection in serum of antibodies against  
Blastomyces  
by immunodiffusion  
\*Additional details regarding diagnostic characteristics of laboratory methods used for diagnosis of blastomycosis are described in  
Appendix 1  
.  
\*\*The EIA threshold is not set based on clinical or epidemiological data but rather to err on the side of specificity rather than sensitivity. Cross-reactivity is a known problem with the EIA antigen test, and cases known to be infected with another fungal infection should not be counted as blastomycosis cases. This cutoff is to be used in surveillance case definitions and not for making clinical decisions.  
Epidemiologic Linkage  
Epidemiologically linked (e.g., common environmental exposure, which may be suspected among family members, coworkers, friends, etc.) with a confirmed case.  
Criteria to Distinguish a New Case from an Existing Case  
To minimize duplicate counting of infections that are due to relapse or reactivation, a given person should be counted only once as a probable or confirmed case of blastomycosis despite repeated positive testing over time.  
Case Classification  
Probable  
A clinically compatible case that meets presumptive laboratory criteria\*,  
OR  
A clinically compatible case that does not meet laboratory criteria\* but is epidemiologically linked to a confirmed case,  
OR  
A case with confirmatory laboratory criteria but no clinical information available.  
\*Illness in a person with compelling evidence (e.g., culture, histopathology, seroconversion) of a different fungal infection, such as histoplasmosis or coccidioidomycosis, and meeting only non-confirmatory laboratory criteria for blastomycosis should not be counted as a case of blastomycosis since other fungal infections can cause false positive  
Blastomyces  
antigen and antibody test results.  
Confirmed  
A clinically compatible case that meets confirmatory laboratory criteria.  
References  
Saccente M, Woods GL. Clinical and laboratory update on blastomycosis. Clinical Microbiology Reviews. 2010 Apr;23(2):367-81.  
Castillo CG, Kauffman CA, Miceli MH. Blastomycosis. Infectious Disease Clinics of North America. 2016 Mar;30(1):247-64.  
Seitz AE, Younes N, Steiner CA, Prevots DR. Incidence and trends of blastomycosis-associated hospitalizations in the United States. PloS one. 2014;9(8):e105466.  
Reed KD, Meece JK, Archer JR, Peterson AT. Ecologic niche modeling of  
Blastomyces dermatitidis  
in Wisconsin. PloS one. 2008 Apr 30;3(4):e2034.  
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