



STATE OF MICHIGAN

DEPARTMENT OF COMMUNITY HEALTH
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

JANET OLSZEWSKI
DIRECTOR

February 27, 2007

To: Communicable Disease Staff and MDSS Users, Michigan Local Health Departments; MDSS Administrators; Regional Epidemiologists

From: Kimberly Signs, DVM, Communicable Disease Division

Re: Histoplasmosis in Michigan/Case Definition for MDSS Reporting

While histoplasmosis is reportable in Michigan, it is not a nationally notifiable disease. Therefore no standard case definition has been developed for histoplasmosis as exists for other nationally notifiable diseases. To address this gap, the Michigan Department of Community Health has developed a histoplasmosis case definition for local health department use during case ascertainment and reporting via MDSS.

Histoplasmosis is a disease caused by infection with the fungal organism *Histoplasma capsulatum*. Infection occurs when the fungal spores, which may be present in soil and other organic material, are inhaled. Michigan is a state that is of low endemicity for the presence of *Histoplasma capsulatum* in the soil. Organic material such as collections of bird or bat droppings may enhance the growth of *Histoplasma capsulatum* spores which thrive in soil that is high in nitrogen.

The vast majority of infected individuals will be asymptomatic (have no clinical illness), or may have only mild clinical symptoms for which they do not seek medical attention. When symptoms do occur, the incubation period is usually 3-17 days. Symptoms are typically respiratory in nature and can include fever, malaise, chest pain, dry cough, headache, shortness of breath, hoarseness, and joint and/or muscle pain. Chest x-rays of a person with acute histoplasmosis may reveal a patchy pneumonitis. The healing process may produce calcifications in the lungs. Chronic histoplasmosis can resemble tuberculosis, and symptoms may progress over months and years. Disseminated histoplasmosis is a rare and aggressive form of infection that spreads beyond the lungs to affect other organs in the body. This form can be fatal if not treated. Persons with weakened immune systems are most susceptible to severe forms of infection. It is also possible for persons who were previously infected with histoplasmosis (potentially years ago) to have reactivation of a latent infection when their immune system becomes weakened for various reasons.

In order for a patient to be considered to have an acute case of histoplasmosis, they must have a **clinically compatible illness** coupled with **laboratory evidence of infection**. Please use the following case definition when classifying cases for MDSS entry:

Clinical Description

A case of acute histoplasmosis is defined as an influenza-like illness with two or more of the following symptoms: fever/chills, cough, chest pain, weakness, or myalgia/arthritis.



STATE OF MICHIGAN
DEPARTMENT OF COMMUNITY HEALTH
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

JANET OLSZEWSKI
DIRECTOR

Laboratory Criteria for Diagnosis

Probable:

- Complement fixation titer to the yeast-phase antigen $\geq 1:32$ or
- H band detected by Immunodiffusion testing or
- Detection of antigen in body fluids including urine, serum, cerebral spinal fluid, and broncho-alveolar lavage fluid

Confirmed:

- A four-fold rise in complement fixation titer between serum specimens collected 2-4 weeks apart
- Identification of the organism in tissues by histopathology
- Isolation of the organism from cultures

References:

“Histoplasmosis: Protecting Workers at Risk”, DHHS(NIOSH) Publication No. 2005-109,
<http://www.cdc.gov/niosh/docs/2005-109/>

Wheat JL. “Current diagnosis of histoplasmosis”. Trends in Microbiology, 2003; 11:488-494.

Wheat J, Sarosi G, McKinsey D, et al. “Practice Guidelines for the Management of Patients with Histoplasmosis”. Clinical Infectious Diseases, 2000; 30:688-95.

If you have questions about any of the information provided here, please feel free to contact me by phone at 517-335-8165, or by e-mail at signsk@michigan.gov.

Cc: Dr. Stobierski
Dr. Muyombwe