



Effective Health Care Histoplasmosis Diagnosis and Treatment Nomination Summary Document

Results of Topic Selection Process & Next Steps

- The area of focus on treatment of histoplasmosis was addressed by a guideline from the Infectious Diseases Society of America (IDSA) titled *Clinical practice guidelines for the management of patients with histoplasmosis*. This IDSA guideline was informed by a literature review (literature search 1999 – July 2006). It was later reviewed in June 2011, at which time it was determined to be up-to-date as additional literature had not changed the recommendations. Given that the existing guidelines cover this nomination, no further activity will be undertaken on this topic.
 - Wheat L, Alison G, Kleiman M, et al. Clinical practice guidelines for the management of patients with histoplasmosis: 2007 update by the Infectious Diseases Society of America. *Clinical Infectious Diseases* 2007; 45:807-25. Available at: <http://cid.oxfordjournals.org/content/45/7/807.long>
- The area of focus on diagnosis of histoplasmosis is not feasible for a full systematic review due to the limited data available for a review at this time.

Topic Description

Nominator(s): Individual

Nomination Summary: Histoplasmosis is affecting a growing number of people and is often misdiagnosed as the flu or common cold, as it shares many of the same symptoms as these more common and less serious diagnoses. Antifungal medications may be useful for treating histoplasmosis in its early stages, though these medications must be taken for extended periods of time and many have serious side effects. When the infection is not identified in its early stages, it may disseminate throughout the body, which can result in long-term complications. Disseminated histoplasmosis may require surgical intervention. While the fungal infection may go into remission, it is never completely removed from the body, regardless of the course of treatment or whether or not the infection is disseminated

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Key Question 1

Population(s): Immunocompetent children and adults diagnosed with histoplasmosis

Intervention(s): Diagnostic strategy for diagnosis and screening in high-risk groups

Comparator(s): Those listed (i.e., compared to each other), no strategy/usual care, placebo

Outcome(s): Early identification of histoplasmosis, decreased risk of disseminated histoplasmosis, harms associated with diagnostic strategies

Key Question 2

Population(s): Immunocompetent children and adults diagnosed with histoplasmosis

Intervention(s): Antifungal medications, surgical treatments, and other treatments

Comparator(s): Those listed (i.e., compared to each other), no treatment, placebo

Outcome(s): Reduction of symptoms, adverse events, health-related quality of life, decreased risk for disseminated histoplasmosis

Key Questions from Nominator:

1. What are safe and effective methods for diagnosing histoplasmosis in immunocompetent children and adults, particularly in its early stages?
 - a. Screening in high-risk groups
 - b. Diagnostic strategy
2. What are safe and effective methods for treating histoplasmosis in immunocompetent children and adults, particularly in its early stages?
 - a. Antifungal medications, surgical treatments, and other treatments

Considerations

- The topic meets EHC Program importance criteria. (For more information, see <http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/>.)
- Histoplasmosis is a fungal infection caused by inhalation of *Histoplasma* spores found in bat and bird droppings. While histoplasmosis can affect anyone, it is more commonly seen in immunocompromised children and adults or in persons living in the Ohio and Mississippi River valleys where it is particularly prevalent. Despite its prevalence in these populations, it can be difficult to diagnose since its presentation is similar to a cold or the flu. Diagnosis is also difficult since many people with histoplasmosis are asymptomatic. This may mean that practitioners do not identify the infection in a timely manner, which may lead to delayed treatment. If left untreated, histoplasmosis may disseminate.
- The area of focus on treatment of histoplasmosis was addressed by a guideline from the Infectious Diseases Society of America (IDSA) titled *Clinical practice guidelines for the management of patients with histoplasmosis*. This IDSA guideline was informed by a literature review (literature search 1999 – July 2006). It was later reviewed in June 2011, at which time it was determined to be up-to-date as additional literature had not changed the recommendations. The areas included in the guideline are:
 - What is the treatment for acute and chronic pulmonary histoplasmosis?
 - What is the treatment for complications of pulmonary histoplasmosis (e.g. pericarditis, arthritis/erythema nodosum, mediastinal lymphadenitis, mediastinal granuloma, mediastinal fibrosis, broncholithiasis, and pulmonary nodule)?
 - What is the treatment for progressive disseminated histoplasmosis
 - Is prophylaxis recommended for immunocompromised patients?
 - What is the treatment for CNS histoplasmosis?
 - What is the treatment for histoplasmosis in pregnancy?
 - What treatment is recommended for histoplasmosis in children?

- The area of focus on diagnosis of histoplasmosis is not feasible for a full systematic review due to the limited data available for a review at this time. Available research on the diagnosis of histoplasmosis focuses on refinement of current diagnostic methods, rather than the development of new methods. The nominator appears to be interested in the benefits of diagnosing histoplasmosis in its early stages, but studies on early diagnosis could not be identified. Two studies that focused on rapid testing were identified, which could have implications for early treatment, however, they are not directly relevant to the nominator's interest in early diagnosis.