

Health Advisory: MDR TB Cluster Investigation

Minnesota Department of Health Mar 06, 2017 11:00 CST

Action Steps:

Local and tribal health departments: Please forward to hospitals and clinics in **Ramsey, Hennepin, Dakota, Anoka, Washington, Scott, Wright, Carver, Stearns, and Olmsted counties.**

Hospitals and clinics: Please distribute to primary care providers, pediatricians, emergency room providers, urgent care providers, pulmonologists, infectious disease specialists, and infection preventionists in **Ramsey, Hennepin, Dakota, Anoka, Washington, Scott, Wright, Carver, Stearns, and Olmsted counties.**

Health care providers:

- Include tuberculosis (TB) in the differential diagnosis for non-US born patients from areas with high TB prevalence presenting with fever, respiratory symptoms, or weight loss even if they have previously been treated for latent TB infection (LTBI)
- Perform an interferon-gamma release assay (IGRA) or tuberculin skin test (TST), AND chest x-ray for patients with symptoms consistent with and risk factors for active TB disease.
- Test for LTBI among patients with known exposure to an active TB patient but without symptoms of active TB disease who have not previously been tested or have had previous negative test results
- Ask patients about known exposure to individuals with multidrug-resistant tuberculosis before starting treatment for LTBI
- Report cases of probable or confirmed active TB within 24 hours to MDH at 651-201-5414 or 1-877-676-5414 and call MDH for questions about testing for TB or interpretation of TB test results

Background

MDH in collaboration with St. Paul–Ramsey County Public Health are actively investigating a cluster of multidrug-resistant tuberculosis (MDR TB) cases among the elderly Hmong community in Ramsey County. However, we believe this situation may be broader than Ramsey County. Risk factors for reactivation of latent infection in this group include age ≥ 65 years, chronic kidney disease, and diabetes. Tuberculosis (TB) is a disease caused by the bacterium *Mycobacterium tuberculosis* (Mtb). Individuals infected with Mtb may develop radiographic signs and/or symptoms of disease (active TB) or may have no clinical evidence of disease (latent tuberculosis infection [LTBI]).

Approximately 10% of individuals with LTBI will have reactivation of the infection with progression to active TB. The risk of reactivation of LTBI to active TB is higher in certain populations. These populations include children less than 5 years of age, individuals with co-morbidities of HIV infection or other immunosuppressive disease, diabetes, chronic kidney disease, patients receiving immunosuppressive therapy, and intravenous drug users.

The diagnosis of MDR TB is made when testing of a patient's Mtb isolate shows resistance to at least isoniazid and rifampin, two of the most commonly used anti-TB drugs. MDR TB is more common in people who do not take their TB medicine as prescribed, are reinfected with TB after having received medicine for TB in the past, come from areas of the world where drug-resistant TB is common, or have spent time with someone with active MDR TB.

Missed diagnoses of active TB cases lead to delays in appropriate treatment and potential spread of disease due to ongoing transmission. When seeing patients presenting with respiratory symptoms who are members of groups that are at high risk for TB disease, obtain a complete symptom profile focusing on common TB symptoms such as fatigue or weakness, weight loss, fever, night sweats, coughing, chest pain, and hemoptysis. Testing for TB should be performed for any patient presenting with symptoms concerning for TB and for asymptomatic close contacts of persons with infectious TB. It is important that active TB infection remains on your differential diagnosis for patients presenting with respiratory symptoms who were previously treated for LTBI.

Individuals who are likely to be infected with Mtb should be tested for exposure to Mtb using an interferon-gamma release assay (IGRA) or tuberculin skin test (TST). The use of IGRA is limited to individuals 5 years of age or older. A positive test for exposure to TB infection (i.e., positive IGRA or TST), does not distinguish active TB from LTBI. The diagnosis of active TB must be excluded prior to initiation of treatment for LTBI. Distinguishing between active TB and LTBI is typically done by performing a symptom profile to determine whether symptoms of active TB disease are present AND obtaining a chest x-ray (CXR). If the symptom profile is suggestive of TB or the CXR has any abnormal findings consistent with old or active TB (e.g., airspace opacities, pleural effusions, cavities, or changes on serial radiographs), then induced sputum or other respiratory samples are obtained for microscopy and culture. Patients should also have a thorough physical exam including evaluation of lymphadenopathy as lymph nodes are a common site of extrapulmonary TB.

Treatment of patients with LTBI at high-risk for reactivation TB is extremely important in TB control efforts. Management of patients diagnosed with LTBI who have connections to the current cluster of MDR TB cases, is different from typical LTBI treatment. Treatment decisions should be individualized for each patient in consultation with experts in the management of drug-resistant TB. Please call MDH at 651-201-5414 to discuss management of patients connected to the current cluster investigation.

For more information

Visit the MDH web page for more detailed treatment guidelines and to learn more about TB <http://www.health.state.mn.us/tb> . For questions, please call 651-201-5414.

A copy of this HAN will be available at www.health.state.mn.us/han/ .

The content of this message is intended for public health and health care personnel and response partners who have a need to know the information to perform their duties.