Tuberculosis

Tuberculosis (**TB**) is infection with *Mycobacterium tuberculosis*, a type of bacterium. It is estimated that approximately 15 million individuals in the United States and as many as 30% of the world's population are infected. Tuberculosis infection typically occurs after repeated or prolonged exposure to the coughing of an actively infected person. Infection can involve any organ in the body, but the lungs are the most common site of damage. In **active infection**, there is damage to organs. In **latent infection** the person carries the bacteria but does not have current signs of active infection. Latent TB infection is important to diagnose and treat because it can become active infection. **Multidrug-resistant TB** is resistant to (cannot be killed by) standard antibiotics. This type of TB arises from improper or incomplete treatment of TB infection or through exposure to a person infected with this type of bacterium. The June 8, 2005, issue of *JAMA* is a theme issue devoted to articles about TB.

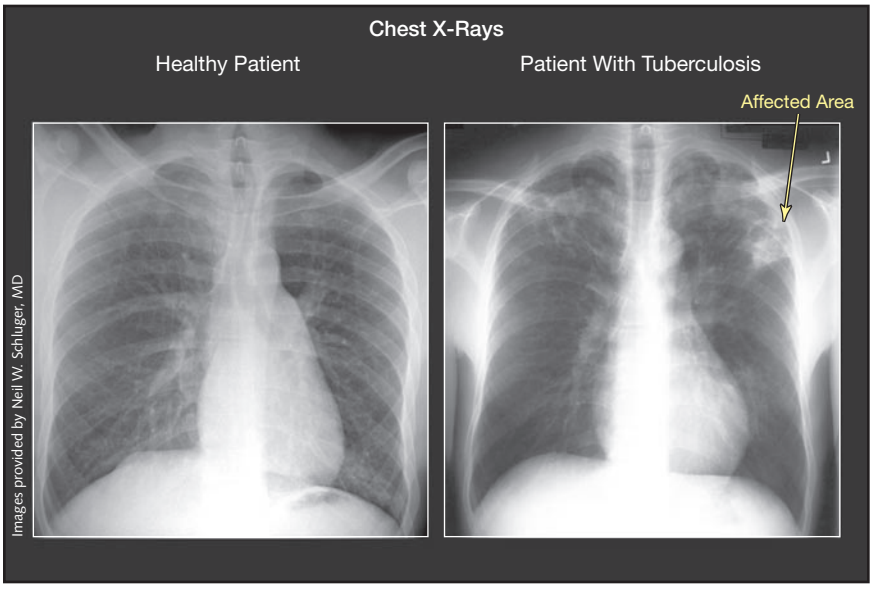
SYMPTOMS

Symptoms vary depending on the patient's age and which organs are infected.

- Fever and sweating (particularly at night)
- Unexplained weight loss
- Loss of appetite
- Fatigue
- Persistent cough that may be associated with bloody sputum
- Difficulty breathing or chest pain with breathing

DIAGNOSIS

In addition to a complete medical history and physical examination, your doctor will perform a test for TB by injecting under the skin of your forearm a small amount of protein derived from TB bacteria. This area must be examined 48 to 72 hours later by a doctor or nurse who will measure any reaction at the injection site. If you have an active cough, your doctor will obtain a sample of your sputum to examine for the bacteria. Your doctor may also order a **chest x-ray** (a picture of the lungs) to look for signs of the infection or blood tests to determine whether other organs are infected.



TREATMENT

Appropriate treatment usually requires a regimen of 3 to 4 antibiotics taken daily for a minimum of 6 to 9 months. Treatment of multidrug-resistant TB requires additional medications and may last as long as 2 years. Medications are given under close supervision to ensure that all doses are taken and to monitor for any adverse effects.

FOR MORE INFORMATION

- American Lung Association
  800/LUNG-USA
  www.lungusa.org
- National Center for HIV, STD, and TB Prevention
  Division of Tuberculosis Elimination
  404/639-8140
  www.cdc.gov/nchstp/tb

INFORM YOURSELF

To find this and previous JAMA Patient Pages, go to the Patient Page link on *JAMA*'s Web site at www.jama.com. Previous Patient Pages on tuberculosis were published on April 19, 2000 (testing for tuberculosis), August 18, 1999 (the global implications of tuberculosis), and November 18, 1998 (controlling the spread of tuberculosis).

Source: American Lung Association

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