# New York State Department of Health

# Tuberculosis (TB)

Last Reviewed: June 2007

# What is tuberculosis?

Tuberculosis is a bacterial disease usually affecting the lungs (pulmonary TB). Other parts of the body can also be affected, for example lymph nodes, kidneys, bones, joints, etc. (extrapulmonary TB). Approximately 1,300 cases are reported each year in New York State.

# Who gets tuberculosis?

Tuberculosis can affect anyone of any age. People with weakened immune systems are at increased risk.

## How is tuberculosis spread?

Tuberculosis is spread through the air when a person with untreated pulmonary TB coughs or sneezes. Prolonged exposure to a person with untreated TB usually is necessary for infection to occur.

# What is the difference between latent tuberculosis infection and tuberculosis disease?

Latent tuberculosis infection (LTBI) means the person has the TB germ in their body (usually lungs), but has yet to develop obvious symptoms. In latent TB, the person has a significant reaction to the Mantoux skin test with no symptoms of tuberculosis, and no TB organisms found in the sputum. Tuberculosis disease indicates the person has symptoms, a significant reaction to a Mantoux skin test and organisms found in the sputum. In order to spread the TB germs, a person must have TB disease. Having latent TB infection is not enough to spread the germ. Tuberculosis may last for a lifetime as an infection, never developing into disease.

## What are the symptoms of tuberculosis?

The symptoms of TB include a low-grade fever, night sweats, fatigue, weight loss and a persistent cough. Some people may not have obvious symptoms.

## How soon do symptoms appear?

Most people infected with the germ that causes TB never develop active TB. If active TB does develop, it can occur two to three months after infection or years later. The risk of active disease lessens as time passes.

## When and for how long is a person able to spread tuberculosis?

A person with TB disease may remain contagious until he/she has been on appropriate treatment for several weeks. However, a person with latent TB infection, but not disease, cannot spread the infection to others, since there are no TB germs in the sputum.

# What is the treatment for tuberculosis?

People with latent TB infection should be evaluated for a course of preventive therapy, which usually includes taking antituberculosis medication for several months. People with active TB disease must complete a course of treatment for six months or more. Initial treatment includes at least four anti-TB drugs, and medications may be altered based on laboratory test results. The exact medication plan must be determined by a physician. Directly observed therapy (DOT) programs are recommended for all TB patients to help them complete their therapy.

# What can be the effect of not being treated for tuberculosis?

In addition to spreading the disease to others, an untreated person may become severely ill or die.

#### What can be done to prevent the spread of tuberculosis?

The most important way to stop the spread of tuberculosis is for TB patients to cover the mouth and nose when coughing, and to take all the TB medicine exactly as prescribed by the physician.

# What is multidrug-resistant tuberculosis (MDR-TB)?

This refers to the ability of some strains of TB to grow and multiply even in the presence of certain drugs which would normally kill them.

#### What is extensively drug-resistant tuberculosis (XDR-TB)?

Extensively drug-resistant TB (XDR-TB) is a subset of MDR-TB in which the strains of TB bacteria are resistant to several of the best second-line drugs for TB. These strains are very difficult to treat. XDR-TB cases make up approximately 10 percent of MDR-TB cases.

# Who gets MDR-TB?

TB patients with drug sensitive disease may develop drug resistant tuberculosis if they fail to take antituberculosis medications as prescribed, as well as TB patients who have been prescribed an ineffective treatment plan. TB cases diseased with MDR-TB can transmit the drug resistant infection to other individuals.

#### What is the treatment for multidrug-resistant tuberculosis?

For patients with disease due to drug resistant organisms, expert consultation from a specialist in treating drug resistant TB should be obtained. Patients with drug resistant disease should be treated with drugs to which their organisms are susceptible. The effectiveness of treatment for latent infection with MDR-TB is uncertain.

## What can be done to prevent the spread of MDR-TB?

Ensuring people with MDR-TB take all their medication and teaching patients to cover their mouth and nose when coughing and sneezing can reduce the risk of spread of MDR-TB. In addition, directly observed therapy should be used to ensure patients complete the recommended course of therapy.

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