

Fact Sheet

Tuberculosis (TB) and HIV

Introduction

The most common opportunistic infection in people with HIV is TB. If you have TB it can be cured. Whether or not you have had TB before, it can also be prevented. Many people with HIV die prematurely from TB.

What is TB?

TB is caused by a bacterium (germ). The TB germ spreads through the air when a person who has the disease coughs, sneezes or breathes. TB can occur anywhere in the body, but only TB in the lungs can infect other people. Anyone can become infected with TB, **but all people with HIV are at greater risk of becoming sick with TB disease.** People with HIV/AIDS with a CD4 count lower than 200 also stand a greater chance of dying from TB.

What is the difference between TB infection and TB disease?

TB *infection* (latent TB) means that the bacteria are inside your body but they are not active. People who are infected with TB usually have no symptoms and most of them do not become ill. They also do not pass the disease on to other people.

TB *disease* is also called *active* TB. Active TB means the infection has become active in your body and will make you sick. People with active TB have symptoms and can pass it on to other people. Therefore, active TB must be treated, cured and, where possible, prevented. If TB is left untreated it can be fatal.

What are the signs and symptoms of active TB?

Symptoms of active TB disease in the lungs include prolonged cough, sputum, fever, night sweats, weight loss and tiredness. If you have active TB in the lungs, you will usually have a cough that will not go away. Sometimes your sputum will have blood when you cough. If you have HIV and TB, you can get other opportunistic infections such as pneumonia. If you have a persistent cough for more than three weeks you should go to a clinic to be checked.

How can health workers tell if I have active TB?

Health workers can test for TB in different ways. The most reliable test for TB used is a sputum test. A chest X-ray may also be necessary.

Can TB infection be treated or prevented?

Yes. It is possible to treat latent TB infection, thus reducing the risk of developing active TB. Seek counselling from an experienced TB doctor to discuss the advantages and disadvantages of such treatment. Isoniazid, also called INH, is an antibiotic pill used to treat latent TB. It must be taken for at least six months. Although there are no clear global guidelines on when to begin INH therapy, the risk of TB rises steadily with decreasing CD4 count, especially CD4 counts below 200. INH is cheap and provided free of charge at many hospitals and clinics. Your health worker should check every month for serious INH side effects. If you are diagnosed with active TB, then you will need instead three to four drugs for treatment (see "Can active TB be treated?"). If you develop side effects such as a skin rash, you should seek advice from your doctor. You may need to change one or more of your drugs.

If you live, work or study in areas where TB is common, prevention of TB infection may be critical. Always use a tissue or handkerchief for coughing and sneezing. Encourage other people to do the same.

If you know or suspect you have been around someone with TB, you should go to the clinic to be checked, especially if you have any symptoms. TB is more likely to be transmitted to people who have close contact, such as living in the same household. If you are found to have TB, you can start treatment early. If you do not have TB, you may benefit from INH preventive therapy, especially if you live with HIV.

Can active TB be treated?

Yes. Persons diagnosed with active TB can be treated and cured with medication taken for six to eight months. TB treatment starts with three or four drugs. People with severe TB might spend time in the hospital. After two months, the number of drugs are reduced.

If you have drug resistance, you may need medication for a longer period. **TB medication must be taken until the doctor says that your TB is cured.** Stopping or skipping TB medication just because you feel better might lead to recurrence of TB (also known as relapse). When you relapse and get TB again, it might become more difficult to cure. By not finishing your medication you could also develop drug-resistant TB. Treatment of drug-resistant TB is more difficult and much more expensive. **Treat TB and finish all your medication until the doctor says you are cured.**

What is DOTS?

“DOTS” is a strategy used by health authorities to ensure that a TB program is successful and that people with TB finish their treatment. One key component of this is directly observed treatment (DOT), which means that someone helps you to take every dose of TB medication. You can ask a family member, colleague, friend, or partner to help you remember when to take your pills and to make sure that you finish your treatment. You can also go to your local clinic or any place where DOTS nurses or volunteers work (shops, churches, factories) to take your TB medicines.

What drugs are used to treat TB?

There are five first-line drugs produced and used to treat TB. The same drugs are used in TB patients co-infected with HIV, and in HIV negative people. Because TB is mainly a disease of poor people and countries, drug companies have not developed or researched any new drugs for more than 40 years. HIV treatment activists must campaign for more TB drug and vaccine research, as well as better access to existing TB drugs in clinics and hospitals.

Isoniazid (INH), Rifamycins such as Rifampicin and Rifabutin, Streptomycin, Ethambutol, and Pyrazinamide (PZA) are the key drugs used to treat TB. TB drugs like all medicines may have side effects. Alcohol often causes problems with medications. Ask your health worker about alcohol use with any medications. Sometimes you have to take TB pills with food and sometimes without food. It is important to remember that drugs can cause side effects in a minority of patients. All TB drugs except Streptomycin can be taken during pregnancy.

INH

INH side effects can include rash, liver problems and tingling in the hands and feet. Avoid or reduce alcohol to decrease liver problems. Ask the clinic or hospital for vitamin B6 to reduce tingling in hands and feet. INH must be taken with food to prevent stomach problems.

Rifamycins

Rifamycins can cause your fluids to change color. Your urine, tears and faeces can turn orange with rifamycins. This is a normal side effect and does not mean you have to stop taking this medication. It can also cause flu-like symptoms, fever and liver problems.

Rifamycins must be taken **without food** on an empty stomach. This drug can stop contraceptives such as the pill and injection from working properly. **Avoid or reduce alcohol.** If you are on any anti-retroviral treatment inform your doctor. Some rifamycins may interfere with anti-retrovirals—special caution is necessary. Also, special caution is needed for persons who must take some rifamycins while they are receiving methadone treatment.

Streptomycin

Streptomycin injections are painful and abscesses may form at injection sites. Some people experience allergic reactions. Streptomycin may cause headache, vomiting, dizziness, and/or ringing of the ears.

Ethambutol

Ethambutol may cause nausea, vomiting, rash and vision problems.

PZA

PZA can cause pains and aches in the joints, nausea, vomiting, rashes and liver problems. When taking PZA always drink a lot of water.

Multi-drug resistant TB (MDR-TB)

MDR-TB is resistant to at least two of the main TB drugs, INH and rifampicin. MDR-TB can infect anyone. In people with HIV/AIDS, MDR-TB can cause death rapidly. MDR-TB is difficult and very expensive to treat as it requires different TB medications that are more toxic, less effective, and more extensive (18 to 24 months). It is a small but growing epidemic. MDR-TB can be prevented by completing all TB medications when you have active TB and by rapid treatment of anyone with MDR-TB. In some countries, generic and state production through compulsory licensing of MDR-TB drug will be critical to making treatment affordable and accessible.

General Facts About TB

- ▶ Although TB is curable, the disease takes a life every 15 seconds
- ▶ Worldwide, one third of people living with HIV are co-infected with TB
- ▶ Up to 50 percent of people with HIV or AIDS develop TB
- ▶ TB causes up to 40 percent of AIDS deaths
- ▶ People with HIV are up to 50 times more likely to develop TB in a given year than HIV-negative people
- ▶ In most of East and Southern Africa, less than one patient in three receives a full course of TB drugs

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