Tuberculosis and HIV co-infection

FAST FACTS

- Tuberculosis (TB) is one of the most common co-infections that people living with HIV can develop.
- Testing for TB can be easily done with a blood test or by taking a sample of mucus or other bodily fluid.
- If you are diagnosed with active TB, you will be offered treatment with a course of antibiotics.

What is tuberculosis?

Tuberculosis, or ‘TB’, is an infection that most commonly attacks the lungs or throat (pulmonary TB).

It can also attack other parts of the body (extra-pulmonary TB), such as the lymph nodes, spine or brain.1 2

If you're living with HIV, it means that you are more likely to develop TB because of a weak immune system.3 However, you can reduce the risk of TB by taking your HIV treatment properly to keep your immune system strong and healthy.

If you're living with HIV you should get tested for TB regularly.4

How do you get TB?

Pulmonary TB is the only type of TB that can be passed on to others. If someone with TB coughs or
sneezes, the bacteria in these tiny droplets can be inhaled by another person.\textsuperscript{5}

However, not everyone infected with TB will become ill. There are two types of TB infection; 'active' and 'inactive'.

**Active TB**

Active tuberculosis means TB is spreading throughout the body, and the immune system cannot prevent illness and symptoms of TB.

Symptoms of active TB include:

- a cough for more than 3 weeks
- extreme tiredness
- fever
- night sweats
- loss of appetite
- weight loss.\textsuperscript{6}

Symptoms of active extra-pulmonary TB often include swollen glands or pain in the affected area.\textsuperscript{7}

**Inactive TB**

If a person has inactive (or latent) TB, it means their body has been able to fight TB and stop it from causing illness. They do not have symptoms and can't pass TB to other people.

In some people, TB remains inactive for their whole life. In other people, TB may become active if their immune system weakens - for example by HIV.\textsuperscript{8}

**The risks of HIV and TB co-infection**

If you're living with HIV and have tuberculosis, you are said to have a co-infection. This means that tuberculosis:

- is harder to diagnose
- spreads faster
- is more likely to be fatal if left untreated
- can spread to other parts of the body
- is more likely to return after being treated
- is harder to treat if you have a drug-resistant strain.\textsuperscript{9}

**How can I prevent TB?**

It's difficult to prevent TB because it can be passed on via the air. Covering the mouth with a hand or tissue when coughing or sneezing can help to stop the spread of TB.

*The most effective way to prevent TB is to get tested and treated in order to prevent passing it to others.*

**BCG vaccine**

There is a vaccine against TB called the BCG, but the vaccine is now very old (it was first used in the 1920s). It is around 80% effective but only for 15 years, and so it is being phased out in some countries where TB is not a major problem.\textsuperscript{10}

**Can I get tested for TB?**
There are many types of TB tests. Usually TB is diagnosed by a blood test. However, other options could be a sample of sputum (the mucous that is coughed up from the airways) or other body fluid. In other cases a small amount of TB protein may be injected under the skin to see if there’s a reaction.

A chest x-ray may also be recommended to see if TB has scarred the lungs.  

How is TB treated?

Treating active TB

Active TB can almost always be cured with antibiotics. For pulmonary TB, they're usually taken daily for six months. For people with TB in other parts of their body, treatment will last longer.

Treating inactive TB

Treatment is not required for most people with inactive TB. However, if you're living with HIV, TB treatment is necessary to cure and prevent TB causing illness. A similar course of treatment to that for active TB will be recommended.

Treating TB and HIV at the same time

If you have TB and HIV it can be difficult to take drugs for both at the same time because of the number of drugs, how often they need to be taken, and because of drug interactions.

Sometimes you may be asked to take your treatment in the presence of a healthcare professional to check you are taking it correctly.

What happens if I don't take my TB treatment correctly?

If people infected with TB don't, or can't, take their treatment properly, or stop taking it before the end of their course of treatment, TB becomes resistant to the drugs and they stop working.

At this point, the treatment options are limited as the other available drugs are less effective. You will be closely monitored throughout treatment to ensure it's working.

It's important you take TB treatment correctly for the whole length of the course to prevent TB becoming resistant to the antibiotics.

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2. CDC (2012) 'Basic TB Facts'
3. TB Alert 'TB and HIV' [accessed March 2016]
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