Tuberculosis and HIV co-infection

- Tuberculosis (TB) is one of the most common co-infections that people living with HIV can get.
- It's passed on through the air, and in coughs and sneezes of someone with active TB, also known as TB disease.
- Testing for TB is 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 to cure it.

What is TB?

Tuberculosis (TB) is a bacterial infection which normally 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.

How do you get TB?

TB is passed on through the air when a person who is actively infected with TB coughs, sneezes, or exhales. Bacteria comes from their mouth in tiny respiratory droplets which can be passed on to another person who they live with or have lots of close contact with.
Active TB and latent TB – what’s the difference?

When a person is exposed to the bacteria that causes TB, their immune system is generally able to fight the infection and they don’t get sick. However, in people with weakened immune systems – such as people living with HIV who are not on effective treatment – the bacteria can multiply and make them very sick.

Active TB

Active TB is also known as TB disease. This is when the bacteria that causes TB is ‘alive’ and multiplying in the body, and the person’s immune system can’t fight infection or prevent illness. People with active TB can pass TB on through the air when they exhale, cough or sneeze.

Symptoms of active TB include:

- a cough with sputum (mucus) or blood for more than 3 weeks
- chest pain
- extreme tiredness
- fever
- night sweats
- loss of appetite
- weight loss.

Symptoms of active extra-pulmonary TB often include swollen glands or pain in the affected area.

Latent TB

Latent TB is also known as inactive TB. If a person has latent TB, it means their immune system has been able to fight the disease and stop it from causing illness. They don’t have symptoms or health problems and they can't pass it on to other people.

Active TB can be cured with treatment, which can take 6 to 24 months. People with latent TB may also be offered preventative treatment, to stop active TB from occurring.

Symptoms of inactive TB

In some people, TB remains inactive for their whole life. In others, TB may become active if their immune system weakens - for example by having HIV.

How to do you get and prevent TB?

To get TB you usually need to spend a lot of time in close contact with someone with active TB. That’s because when someone with active TB coughs or sneezes, the bacteria in these tiny droplets can pass to another person through the air.

It’s difficult to prevent TB because it can be passed on through the air. Covering your mouth with your hand or a tissue when coughing or sneezing can help to stop the spread of TB.
If someone you live with or have a lot of close contact with has active TB, you should speak to a healthcare professional.

The most effective way to prevent TB is to get tested and treated.

**The BCG vaccine against TB**

The BCG vaccine can protect against TB. The vaccine is around 80% effective against the most severe types of TB, however, protection against TB of the lungs is slightly lower.

The vaccine has been part of routine vaccination programmes in many countries, however it’s being phased out in some places where TB is not a major problem.

If you are interested in getting the BCG vaccine, talk to your healthcare professional about your options.

**HIV and TB co-infection**

If you’re living with HIV, it means that:

- you’re more likely to develop TB if your immune system is weakened.
- you can reduce the risk of TB by taking your HIV treatment correctly to keep your immune system strong and healthy.
- you should test regularly for TB.

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

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

**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 mucus that is coughed up) or another body fluid. Other tests involve a small amount of TB protein being injected under the skin to see if there's a reaction.

Your healthcare professional may also recommend a chest x-ray to see if TB has scarred your lungs.

**How is TB treated?**

**Treating active TB**

Active TB can almost always be cured with antibiotics. For pulmonary TB, antibiotics are 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 always necessary to prevent TB causing illness and to cure it. A similar course of treatment to 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 and how often they need to be taken, and because of the interactions between them. Your healthcare professional can advise you on this.

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

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

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

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

It's important you take your course of TB treatment correctly so that TB doesn't become resistant to the antibiotics.

If you’re worried about taking your HIV and TB treatment correctly then talk to your healthcare professional who can help and support you to get into a routine where your medication will be effective.

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