

Tuberculosis - not just the poor's disease

South Africa is ranked fifth out of 22 high-burden countries that account for 80% of all new cases of tuberculosis that arise globally each year. This, combined with the fact that the TB vaccine is only 80% effective, means that South Africans should be aware of the risks and symptoms of the disease.

By [Graham Anderson](#) 18 Mar 2011



Tuberculosis (TB) is considered to be a poor person's disease, but even those who have been vaccinated are at slight risk of contracting it. According to the World Health Organization's (WHO's) Global TB Report 2009, South Africa had nearly 460 000 new cases in 2007, with 948 cases per 100 000 population.

Addressing the disease in SA is problematic

Addressing the disease in this country is problematic, because of the high incidence of HIV co-infections, with both diseases exacerbating the conditions caused by the other. In addition, many people's non-adherence to their treatment regimens means that more strains of drug-resistant TB are developing.

In light of these figures and factors, everyone has a chance of coming into contact with the bacteria. In preparation for World TB Day on 24 March, here is everything you need to know about TB.

What is TB?

TB is an infectious disease caused by various strains of bacteria in humans. It usually attacks the lungs, but can also affect other parts of the body, like the pleura (covering of the lungs), the bones, the urinary tract, sexual organs, kidneys, spine, lymph nodes and throat if left untreated.

What are the symptoms?

- Cough
- Coughing up blood-tinged phlegm
- Excessive sweating, especially at night
- Fatigue
- Fever
- Weight loss

Who is at risk?

Although anyone can get it, people with suppressed immune systems are especially at risk for contracting TB, including:

- Infants
- The elderly
- Those suffering from HIV/Aids
- Those on immune-suppressing treatments like chemotherapy or rejection-suppressing medication after an organ

How is TB diagnosed?

Traditionally, TB was and still often is diagnosed by identifying the bacteria causing it from a clinical sample of sputum or pus, but growing the culture was very time consuming. A diagnosis can also be made using scans or X-rays of the lungs or a tuberculosis skin test. This involves inserting a small amount of tuberculin under the skin of the arm, and then observing the body's reaction within 48 to 72 hours. The results of this test can sometimes be inconclusive because the diagnosis relies on observations of subtle reactions by a trained professional.

Recently, the Bill and Melinda Gates Foundation and the WHO have supported drug companies in making newly-developed fast and accurate polymerase chain reaction tests for bacterial DNA available to 116 low and middle-income countries, including South Africa, at a discount, which in some cases have reduced the timeframe for results to 100 minutes, meaning that treatment can commence as soon as possible.

What is the treatment?

TB is treated with drugs that fight TB bacteria. The course of treatment always involves a combination of drugs (usually four) which are all continued until lab tests show which drugs are working the best. Patients need to take pills at many different times of the day for one year or even longer. It is vitally important that they stick to this routine, or the TB can become even more difficult to treat.

Because of the complicated and ongoing nature of TB treatment, a health strategy called "Directly-observed therapy, short term" or "DOT" has been started in many places around the world and in South Africa, where healthcare providers actually observe patients taking their medication, to ensure that the regimen is adhered to.

Symptoms can begin to improve within two to three weeks, but the improvement will only show up on a lung x-ray much later on. The prognosis is excellent if the TB is detected early and the treatment is adhered to.

How can you avoid contracting TB?

Although the TB vaccine is not 100% effective, it is still a good idea to vaccinate all children in South Africa, as we live in a high-risk country.

If you have come into contact with someone suffering from TB or suspect that you have been infected, contact your doctor immediately to arrange a skin test that will indicate your exposure and whether or not the infection is active.

Preventative therapy is available if you have been exposed. Discuss the timing of a follow-up test with your doctor.

World TB Day is Thursday 24 March.

ABOUT THE AUTHOR

Graham Anderson is principal officer of Profmed