



## FREQUENTLY ASKED QUESTIONS: TUBERCULOSIS



### 1. What is tuberculosis?

Tuberculosis (TB) is a highly contagious infection caused by the bacterium *Mycobacterium tuberculosis*. It usually attacks the lungs but can also affect other parts of the body, including the bones, kidneys, and brain. Following infection, most people do not develop disease but carry the bacteria for a long time. They are said to have latent TB infection. People with latent TB infection have no symptoms and cannot spread the disease to others. When symptoms of the disease develop, then the condition is known as TB disease. People with TB disease are infectious and can spread the disease to others. Only 5% of people infected with *M. tuberculosis* develop the disease.

### 2. What are the signs and symptoms of TB disease?

The general signs and symptoms of TB disease include:

- General weakness
- Rapid weight loss
- Fever
- Night sweats

Other symptoms depend on the site where the TB bacteria are multiplying, and can be:

#### Lungs (Pulmonary TB)

- Persistent cough for more than 2 weeks
- Chest pain
- Coughing up of blood
- Stunted growth, or failure to thrive in young children

### 3. Why is TB a health problem in South Africa and the world?

TB is a leading public health problem worldwide, particularly in the developing countries. In view of the seriousness of the problem, in 1993 WHO declared TB to be a Global Emergency. It is estimated that in the 1990's more than 90 million new cases of TB infection occurred, one-sixth of whom were children, and that 5 million of these infected children died from the disease. About a third of the world's population, or around two billion people carry the TB bacteria but most never develop the active disease. Around 10% of people infected with TB actually develop the disease in their lifetimes, but this proportion is changing as HIV severely weakens the human immune system and makes more people vulnerable.

In sub-Saharan Africa, there were 2 354 000 new cases of TB in 2002 with 556 000 fatalities. With HIV at epidemic proportions, it is expected that there will be an increase in TB infection rates, as well as reactivation of dormant TB infection. From January to September 2004, there were 30 117 new cases of TB with a case fatality rate of 3.2% in South Africa.

#### **4. How is TB transmitted?**

TB is spread by air droplets from an infected person to susceptible people during coughing, talking, sneezing, or laughing.

#### **5. Who is at risk?**

TB can affect everyone in the community. However, there are certain people who are especially vulnerable because of their health status and/or their living and working conditions, and they include the following:

- HIV positive persons
- Incarcerated persons due to overcrowded circumstances, high rates of HIV and poor nutritional status
- Miners, as they are subject to occupational hazards such as silicosis
- Military personnel
- Migrant labourers
- Alcoholics
- Intravenous drug users
- Infants and young children exposed to household contacts with infectious TB
- Health care personnel.

#### **6. How do I know if I have or have had TB disease?**

You may suspect TB if any of the following applies to you:

- Persistent cough of more than 2 weeks
- Unexplained weight loss
- History of close contact with an infectious adult TB sufferer

Your doctor will confirm whether or not you have TB by performing the following tests:

- Chest X-ray
- Skin test
- Collect sputum for laboratory confirmation

#### **7. What is the treatment following TB infection?**

- TB can be cured using anti-TB drugs, but for treatment to be effective, the drugs should be taken exactly as prescribed for a period ranging from 6–9 months because the TB bacillus dies very slowly. Failure to take treatment as prescribed often leads to the emergence of multi-drug resistant TB bacteria.
- The treatment course is known as DOTS for Directly Observed Treatment Short-course.

- Drugs that are used, often in combinations of two or more, are isoniazid, ethambutol, pyrazinamide, rifampin and streptomycin.

### **8. How is TB prevented?**

- Early diagnosis and successful treatment of an infectious adult patient is the best way to protect children from being infected with TB.
- Vaccination of newborn babies up to the age of 2 with BCG vaccine will protect them mainly against the development of TB meningitis and disseminated tuberculosis.

### **9. Who should get the TB vaccine?**

- In South Africa, it is compulsory for all newborn infants to receive the BCG vaccine.
- Children under 2 years who were not vaccinated at birth should also get the BCG vaccine.

### **10. How and when is the TB vaccine given?**

- The BCG vaccine is administered intradermally to the right arm.
- A single dose is administered at birth.

### **11. Should HIV positive individuals be vaccinated against TB?**

In South Africa, where the risk of getting tuberculosis is high, BCG is administered immediately after birth. However, the vaccine should not be administered to infants with symptomatic HIV infection.

### **12. What are the side effects of the BCG vaccine?**

BCG is a safe vaccine that is well tolerated. Local reactions following vaccination are common, but long term complications are rare. Local reactions include swelling or abscesses at the site of injection.

#### **Where to find us:**

South African Vaccination and Immunisation Centre (SAVIC)  
PO Box 173, University of Limpopo – Medunsa Campus  
0204, PRETORIA, Gauteng Province, South Africa

Tel: + 27(12)521 3077, Fax: + 27(12)521 4284, Email: [info@savic.ac.za](mailto:info@savic.ac.za); <http://www.savic.ac.za>