



Much to my surprise, the employer (a French national) chose to appeal to the MOM and her basis was that the maid can keep to her room during the treatment. And this lady has a two year old baby in the same house.

## Diagnosis

- *Chest X-rays:*

Chest X-rays may reveal cavitations, calcification (healed disease), and nodes in the upper lobes but cannot confirm diagnosis.

- *Smears and cultures:*

Sputum smears are helpful in diagnosing pulmonary Tuberculosis. Robert Koch was the first to see Mycobacterium tuberculosis with his staining technique in 1882.

Typically, these early morning specimens of sputum are obtained on three different days. The specimen is prepared on a slide, stained with an acid-fast dye, and observed under a microscope. The slide shows the characteristic acid-fast bacilli. Definitive diagnosis requires growing the bacteria and confirming that the culture is Mycobacterium tuberculosis. This process can take several weeks.

- *Tuberculin skin test:*

The tuberculin skin test is based on the fact that infection with M. tuberculosis produces a delayed-type hypersensitivity skin reaction to certain components of the organism. This will

manifest as a swelling which should be read within 72 hours of the test.

## Treatment

The first therapy for TB patients was created by Forlanini, an Italian doctor, in 1890. He found that collapsing the lungs had positive effects on recovery from tuberculosis. But it wasn't until recently, within the last 200 years, that effective treatment methods became available. Between 1944 to 1963, the main types of antibiotics effective against Tuberculosis were discovered in rapid succession. Finally a cure was possible. However to this day, tuberculosis is not totally eradicated. As Tuberculosis bacteria are very slow-growing, the antibiotics must be taken for a long time – usually for 6 months or longer. Often the patient feels completely well after the first 2 months of treatment thus compliance becomes a problem. Furthermore the various drug combinations (4 drugs in the first 2 months followed by 2 drugs in the next 4 months) give rise to many unpleasant side effects.

If the course of drug treatment is not faithfully taken and completed, development of drug resistance becomes a major hurdle to the eradication of TB. This is worsened by the fact that the discovery of new effective drugs against TB is progressing at a snail's pace.

## Prevention

### **There are 2 aspects of prevention.**

- *Stopping the spread of disease*

- Early recognition and treatment of active disease.
- BCG vaccination to protect young children.
- Keep healthy by eating properly, sleep and exercise adequately to keep your immune system in top form.
- Infected patients should cough into a piece of tissue paper or napkin and remain in isolation for 1-2 weeks or until they stop coughing.
- Ensuring good ventilation at home helps to lower the concentration of bacteria and limit the spread and especially in places where people at risk are gathered, such as homeless shelters, jails, and hospital and emergency department waiting areas.

- *Treating early infection*

- Patients with positive tuberculin test should have a routine CXR. Those with x-ray abnormalities suggesting TB require further evaluation for active TB including sputum examination and culture.



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