**WHAT IS IT?**
- Tuberculosis (TB) is a bacterial infection. It usually affects the lungs, gradually destroying tissue, but it can affect other parts of the body such as the lymph nodes, kidneys, spine and brain. It is fatal if not treated.

**CAUSES**
- TB is caused by the bacterium *Mycobacterium tuberculosis*, which is spread through the air from person to person. The bacilli can remain dormant for years before producing active disease and have a thick capsule, enabling them to survive dry and hostile conditions.
- In most people lung infection is usually controlled by the immune system and there are no symptoms. However, if the immune system is compromised the infection will become active.

**INCIDENCE**
- The disease is more common in underdeveloped areas of the world where poverty, poor general health and malnutrition are present.

- The number of TB cases in the UK is rising and people with HIV infection, recent immigrants and homeless people are at increased risk (Nyamathi et al, 2005). Health care staff are also vulnerable.

**SYMPTOMS**
- Symptoms of active TB depend on the part of the body affected. However, the bacteria usually grow in the lungs, causing:
  - A persistent cough;
  - Chest pain;
  - Coughing up blood or sputum.
- Other symptoms can include:
  - Weakness or fatigue;
  - Weight loss;
  - Loss of appetite;
  - Fever;
  - Night sweats.
- Tuberculous pleurisy affects the membranes around the lungs. This can lead to a build-up of fluid in the pleural cavity and partial collapse of the lung.
- On rare occasions TB in the lung can destroy an artery, leading to bleeding into the lung. TB can then spread throughout the body via the bloodstream (miliary TB).
- Meningitis is a dangerous complication of TB.

**DIAGNOSIS**
- TB is often identified from an abnormal chest X-ray. However, diagnosis can only be confirmed by identifying the TB bacterium in specimens such as sputum.
- Inactive TB can be identified through a tuberculin skin test, such as the Heaf (or Mantoux) test. A positive result indicates a degree of natural immunity. Those who test negative are not immune and are more susceptible to infection.

**TREATMENT**
- Tuberculosis is treated with a combination of antibiotic drugs for at least six months.
- The standard treatment is usually isoniazid and rifampicin. In addition, pyrazinamide and ethambutol are given for the first two months. Rifabutin, cycloserine, capreomycin and streptomycin can also be used if there is antibiotic resistance.
- Once treatment has started, people normally become non-infectious after about two weeks and begin to feel better after two to four weeks.
- Recently some strains of the TB bacterium have developed resistance to antibiotics and it is crucial that patients are advised to complete antibiotic courses. For example, some strains are resistant to the two drugs most often used to treat the infection, isoniazid and rifampicin.
- Tuberculin-negative people may benefit from BCG inoculation, which uses a vaccine made from a modified version of the TB bacterium *Mycobacterium bovis*.

**REFERENCES**