TUBERCULOSIS

Tuberculosis (TB) is a potentially serious infectious disease that mainly affects lungs. It is caused by bacteria Mycobacterium tuberculosis that most often affect the lungs.
Tuberculosis is curable and preventable.

WORLD TB DAY- 24th of March

How is TB spread

Tuberculosis is caused by bacteria that spread from person to person through microscopic droplets released into the air. This can happen when someone with the untreated, active form of tuberculosis coughs, speaks, sneezes, spits.

Symptoms

Signs and symptoms of active TB include:

- Coughing that lasts three or more weeks
- Coughing up blood
- Chest pain, or pain with breathing or coughing
- Unexplained weight loss
- Fatigue
- Fever
- Night sweats
- Chills
- Loss of appetite

Tuberculosis can also affect other parts of your body, including your kidneys, spine or brain. When TB occurs outside your lungs, signs and symptoms vary according to the

organs involved. For example, tuberculosis of the spine may give you back pain, and tuberculosis in your kidneys might cause blood in your urine.

Risk factors

Anyone can get tuberculosis, but certain factors can increase the risk of the disease. These factors include:

Weakened immune system

A healthy immune system often successfully fights TB bacteria, but your body can't mount an effective defense if your resistance is low. A number of diseases and medications can weaken your immune system, including:

- HIV/AIDS
- Diabetes
- Severe kidney disease
- Certain cancers
- Cancer treatment, such as chemotherapy
- Drugs to prevent rejection of transplanted organs
- Some drugs used to treat rheumatoid arthritis, Crohn's disease and psoriasis
- Malnutrition
- Very young or advanced age

Health care work: Regular contact with people who are ill increases your chances of exposure to TB bacteria. Wearing a mask and frequent hand-washing greatly reduce your risk.

SMOKING : Researchers have found significant correlation between smoking tobacco and TB, as the risk of developing TB doubles with smoking and also leads to recurrent TB.

SOCIAL FACTORS

Tuberculosis is a social disease with medical factors. Social factors like poor quality of life, poor housing, overcrowding, population explotion, undernutrition, smoking, alcohol abuse, lack of education, large families, lack of awareness of causes of illness contribute to TB infection.

HIV and TB

Since the 1980s, the number of cases of tuberculosis has increased dramatically because of the spread of HIV, the virus that causes AIDS. Infection with HIV suppresses the immune system, making it difficult for the body to control TB bacteria. As a result, people with HIV are many times more likely to get TB and to progress from latent to active disease than are people who aren't HIV positive.

Drug-resistant TB

Standard anti-TB drugs have been used for decades, and resistance to the medicines is widespread. Disease strains that are resistant to a single anti-TB drug have been documented in every country surveyed.
Multidrug-resistant tuberculosis (MDR-TB) is a form of TB caused by bacteria that do not respond to at least 2 most powerful, first-line (or standard) anti-TB drugs.
A primary cause of MDR-TB is inappropriate treatment. Inappropriate or incorrect use of anti-TB drugs, poor compliance of patient, or use of poor quality medicines, can cause drug resistance.

Complications

Without treatment, tuberculosis can be fatal. Untreated active disease typically affects the lungs, but it can spread to other parts of your body through your bloodstream.

TB DIAGNOSIS

1. Sputum smear microscopy

2. Chest X-ray

3. Tuberculin skin test

4. Interferon gamma release assays

DOTS- or Directly Observed Treatment Short course is the internationally recommended strategy for TB control that has been recognized as a highly efficient and cost-effective strategy. In DOTS, during intensive phase of treatment a health worker watches as the person swallows the in his presence. During continuation phase the patient is issued medicine for one week in a multiblister combipack, of which first dose is swallowed in presence of health worker. The consumption of medicine is checked by return of empty multiblister combipack when the patient comes to collect medicine for next week. The drugs are provide in patient-wise boxes.

Revised National Tuberculosis Control Program (**RNTCP**) is the state-run tuberculosis (TB) control initiative of the Government of India. As per the National Strategic Plan 2012–17, the program has a vision of achieving a "TB free India", and aims to achieve Universal Access to TB control services.The program provides, various free of cost, quality tuberculosis diagnosis and treatment services across the country through the government health system.

PREVENTING TB TRANSMISSION

- Houses should be well ventilated and prevent overcrowding
- Cough etiquette and respiratory hygiene (covering your nose and mouth when coughing & sneezing)
- Spend as little time as possible on public transport
- Use face masks
- Isolation if possible
- Children should be away from case or carriers
- Special care of immunocompromised
- Health care workers should use preventive measures

  BCG VACCINATION

  BCG vaccine should be given after birth or at 6 weeks. BCG administered early in life provides a high level of protection, particularly against the severe forms of childhood tuberculosis and tuberculous meningitis.