

TUBERCULOSIS (TB)

Tuberculosis (TB) is a potentially fatal contagious disease that can affect almost any part of the body but is mainly an infection of the lungs.

Neo-Latin word

Tubercle - Round nodule/swelling
Osis - condition.

Causative organisms:

Mycobacterium tuberculosis Human

Mycobacterium Bovis Animals

Other causative organisms:

Mycobacterium africanum

Mycobacterium microti

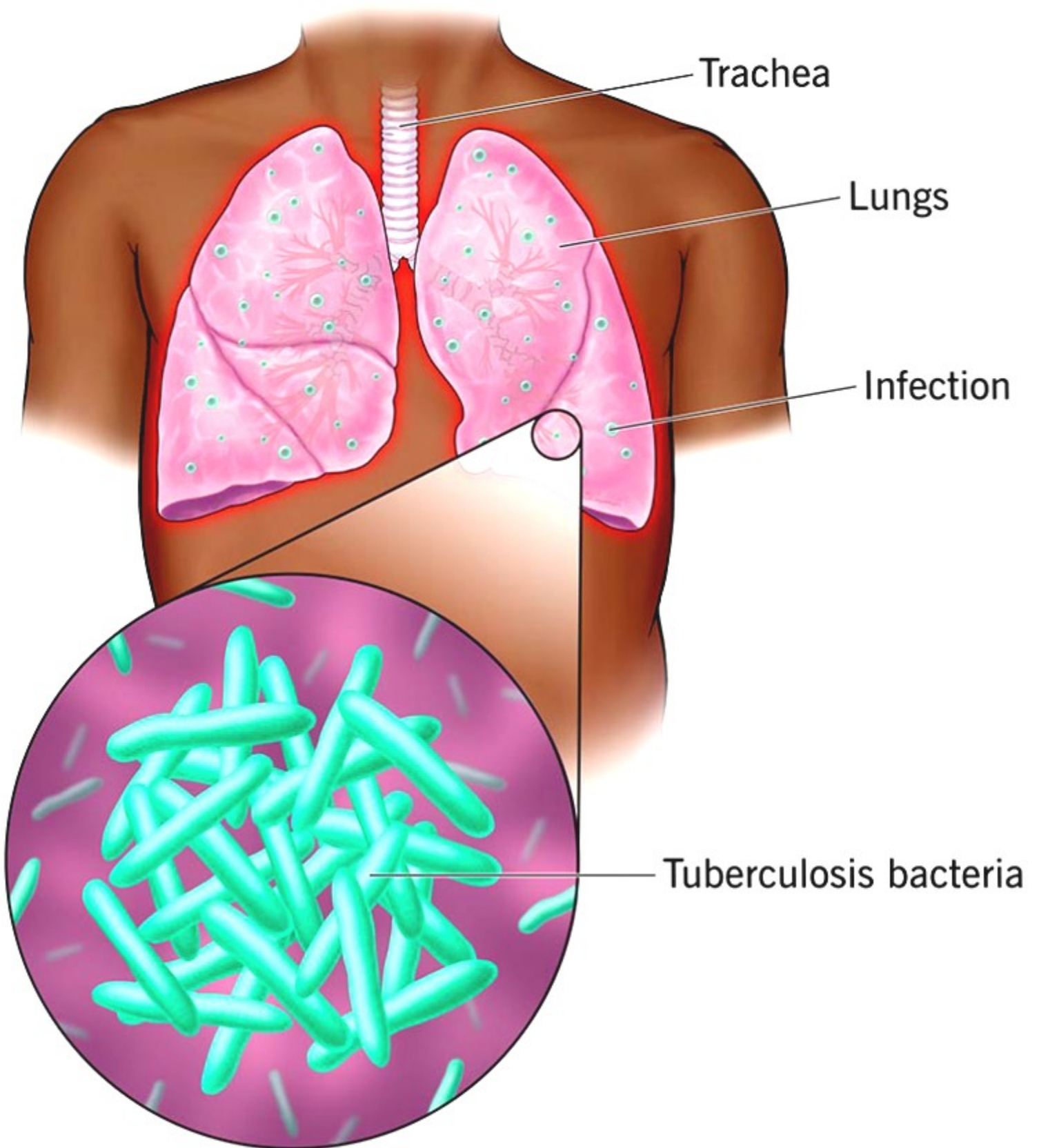
Non-*Mycobacterium* Genus:

Mycobacterium leprae

Mycobacterium avium

Mycobacterium asiaticum.

Tuberculosis



Gram +ve, obligate aerobe, Non-spore forming, non-motile rod, Mesophile, slow generation time, Lipid rich cell wall contains mycolic acid, Acid fast - retains acidic stains, confers resistance to detergents, antibacterials.

classification

pulmonary TB

Primary disease
Secondary disease

Extra pulmonary TB

Lymph node TB
pleural TB
TB of upper airways
Skeletal TB
Genitourinary TB
Milliary TB
Pericardial TB
Gastrointestinal TB
Tuberculous Meningitis

Epidemiology - google.

Symptoms :-

Persistent cough
chest pain

Coughing with bloody sputum

Shortness of breath

Urine discoloration

cloudy and reddish urine.

Fever with chills.

Fatigue.

Tuberculosis Symptoms



fever



fatigue



weight loss



persistent cough



blood in cough



night sweats

Diagnosis:

Bacteriological test:

• Ziehl-Neelsen stain

Auramine stain (fluorescence microscopy)

Sputum culture test:

Lowenstein-Jensen (LJ) solid medium: 4-8 weeks

Liquid medium: 8-14 days

Agar medium: 7-14 days

Radiography: chest x-ray (CXR)

Nucleic acid amplification

Tuberculin skin test:

Injection of fluid into the skin of the lower arm.

48-72 hours later checked for a reaction.

Diagnosis is based on the size of the wheel.

1 dose = 0.1 ml contains 0.04 µg Tuberculin

Tuberculin test interpretation

preventive measure:-

Mask

BCG Vaccine - Bacille Calmette Guerin.

Regular medical follow up

Isolation of patient

Ventilation

Natural sunlight

UV germicidal irradiation.

Management pic + drug pic



TUBERCULOSIS PREVENTION



Healthy Diet



Stop Smoking & Alcohol



Wash your Hands After Sneezing Coughing



Use Mask



Stay Away from Coughing People



Use Personal Utensil & Cutlery

Dosage regimen :-

Intensive phase + continuation phase

HREZ (2 months) + HRE (4 months)

DOTS (Directly observed treatment, short-course) is the name given to the WHO recommended tuberculosis control strategy that combines five components.

Government commitment

Case detection by sputum smear microscopy

Standardized treatment regimen for at least the first two months.

A regular drug supply

A standardized recording and reporting system that allows assessment of treatment results.

DOT is especially critical for patients with drug resistant TB, HIV-infected patients and those on intermittent treatment regimens.

World TB Day - March 24

World TB Day is observed annually on March 24 to raise awareness about TB and efforts to end the global epidemic, marking the day in 1882 when the bacterium causing TB was discovered.