TB case scenario

- A 63-year-old male , taxi driver presented to the emergency department with complaint of frank hemoptysis for the past 3 days. He states he complaining of cough and expectoration of yellowish sputum and shortness of breath with loss of weight for the last 2 months. He also complains of waking up in the middle of the night “drenched in sweat” for the past few weeks.

- His chart indicates that he was in the emergency department last week with similar symptoms and was diagnosed with community-acquired pneumonia and discharged with azithromycin. He is smoker for 40 years . He is diabetic on insulin .

Vitals:

- Temperature :38.0ºC
- Heart Rate: 110 beats per minute.
- Respiratory Rate: 20 breaths per minute.
- Blood Pressure: 130/75.
- Oxygen Saturation: 95% on room air.

Local Examination

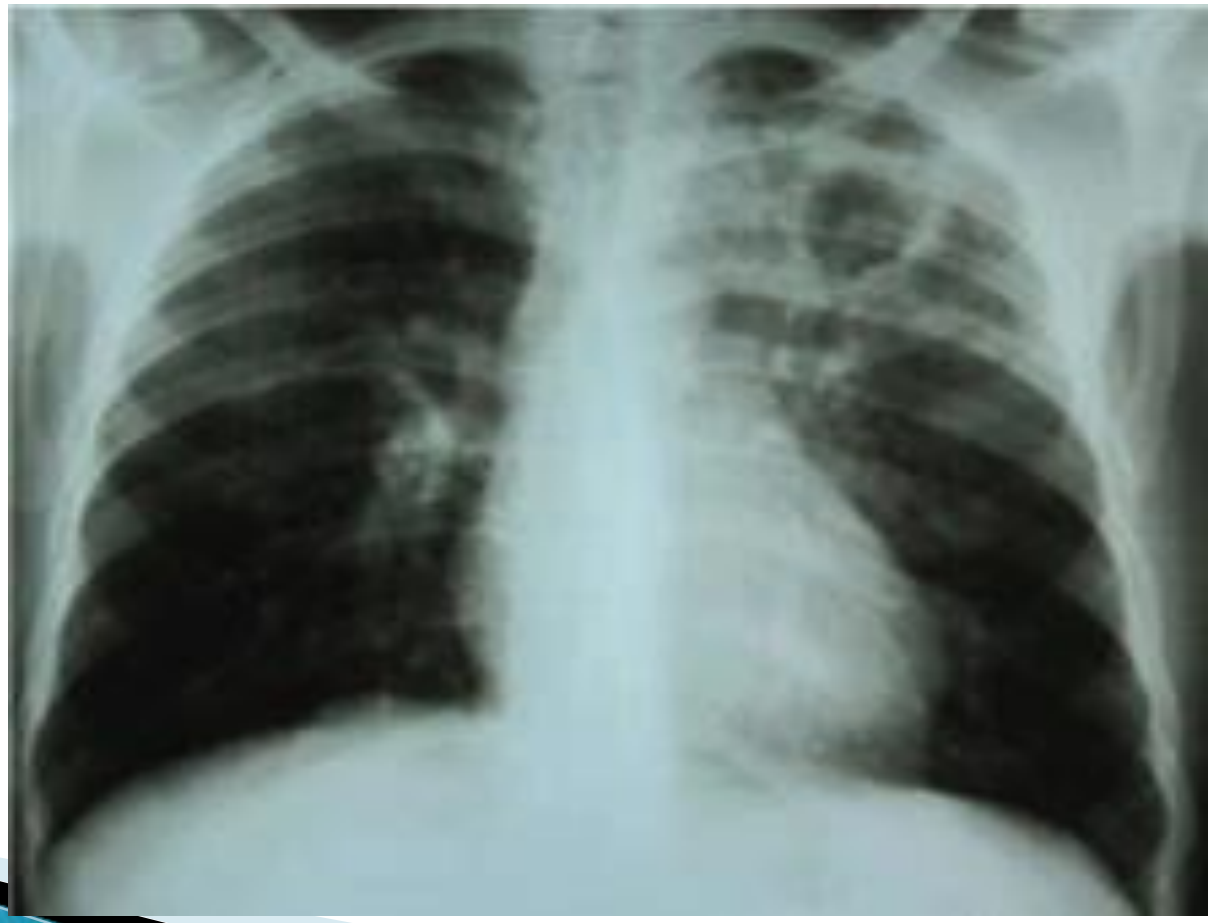
- *Inspection*: diminished movement of the left side.
- *Palpation* : diminished expansion of the left side.
- *Percussion*: Dullness of the left supra mammary region.
- *Auscultation*: diminished vesicular breath sound with crepitations on left supra mammary region.

Labs

- WBC: 9.48 x 109/L
- Hgb: 11.4 g/dL
- Platelets: 149 109/L
- Creatinine: 1.8

- **1.What are further investigations needed?**

- Chest x-ray revealed left sided apical cavitary lesion surrounded by heterogenous opacities .



- A Tuberculin skin test was done and was found to be positive with an induration of 25mm.
- Sputum analysis for AFB smear was positive.

- **2.What are the groups at higher risk for developing TB disease?**

- Diabetes,
- silicosis,
- Impaired immunity as in HIV (human immune deficiency virus) infection, corticosteroids , immunosuppressive drugs .
- Health care providers
- Prisoners
- Gouza consumers
- Age : greater in first 2 year of life, at puberty + adolescence.

- **3. What are the most significant issues that may suggest active TB disease in this patient?**

Assessment of activity :

- *Clinically* :

  Symptoms : Cough, Haemoptysis ,fatigue, night sweating,Weight loss.

  Signs : crepitations.

- *Bacteriology* : +ve sputum ZN smear .
- *Radiology* : - Cavitary lesions, Soft shadows.

- **4.What are the major differences between latent TB and active TB disease ?**

LTBI vs. TB Disease (1)

Person with LTBI	Person with TB Disease (in the lungs)
• Has a small number of TB bacteria in his or her body that are alive, but under control	• Has a large number of **active** TB bacteria in his or her body
• Cannot spread TB bacteria to others	• May spread TB bacteria to others
• Does not feel sick, but may become sick if the bacteria become active in his or her body	• May feel sick and may have symptoms such as cough, fever, or weight loss
• TST or IGRA results usually positive	• TST or IGRA results usually positive
• Chest x-ray usually normal	• Chest x-ray usually abnormal

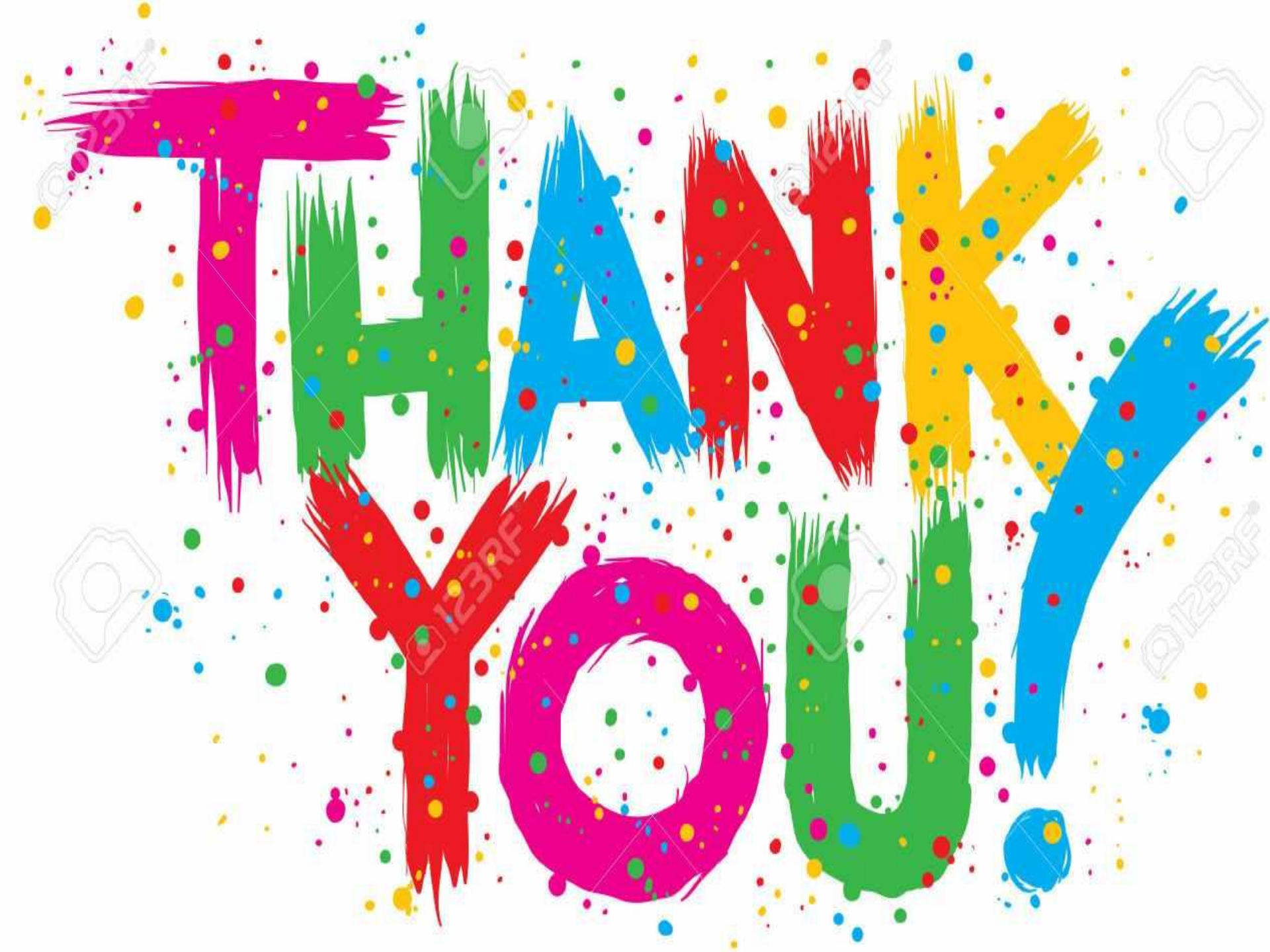
LTBI vs. TB Disease (2)

Person with LTBI	Person with TB Disease (in the lungs)
• Sputum smears and cultures negative	• Sputum smears and cultures may be positive
• Should consider treatment for LTBI to prevent TB disease	• Needs treatment for TB disease
• Does not require respiratory isolation	• May require respiratory isolation
• Not a case of TB	• A case of TB

- **5.What is the standard medication(s) and duration of treatment for this patient?**

6 months regimen :

- *Initiation phase*: Rifampicin + INH + pyrazinamide + ethambutol. → for 2 months.
- *Continuation phase* :Rif + INH for 4 months


THANK
YOU