

DISEASE / PATHOLOGY

- Airborne *Mycobacterium tuberculosis* infection usually affects the lungs.
- Primary process: granulomatous inflammation causes tissue destruction and chronic symptoms.
- Why it matters: can spread to others and become life-threatening if untreated.

RISK FACTORS

- Who is most at risk? Immunocompromised, close contacts, homeless, incarcerated, recent immigrants.
- History / exposure: crowded settings, prior TB exposure, HIV, malnutrition.
- Genetics / lifestyle: substance use and poor access to care increase risk.

SIGNS AND SYMPTOMS

- *Hallmark findings*: chronic cough, weight loss, fever, night sweats.
- Early: fatigue, anorexia, mild hemoptysis, low-grade fever.
- Late / urgent: significant hemoptysis, worsening dyspnea, severe weakness.

DIAGNOSTIC TESTING

- Tests, labs, imaging, procedures: PPD or IGRA, chest x-ray, sputum AFB smear, culture, NAAT.
- Gold standard: sputum culture.
- What confirms it: positive microbiology with compatible clinical findings.

TREATMENT

- First-line: assess respiratory status first and place in airborne isolation if suspected.
- RIPE therapy is common initially: rifampin, isoniazid, pyrazinamide, ethambutol.
- Nursing considerations: monitor liver toxicity, visual changes, adherence, and sputum status.
- Nursing need-to-know: use N95 respirator and negative-pressure room.
- Nursing need-to-know: rifampin turns body fluids orange.

PATIENT EDUCATION

- Home care: take medications exactly as prescribed and do not stop early.
- Cover cough, improve ventilation, and keep follow-up appointments.
- When to call: jaundice, vision changes, worsening cough, or med intolerance.

ADDITIONAL NOTES:

- NCLEX must know: TB requires airborne, not droplet, precautions.
- Red flag: hemoptysis or severe respiratory decline.
- Common exam trap: latent TB is not the same as active TB disease.
- Priority action: isolate first if TB is suspected.