

TB Reference Card

Risk Factors for TB Infection and Developing TB Disease

Risk factors for infection	<ol style="list-style-type: none"> 1. A continuous close contact with an infectious TB patient 2. An increased individual susceptibility to infection <p>Risk Groups</p> <ul style="list-style-type: none"> • People sharing residential accommodations with a TB patient (e.g., apartment, hostels or social care homes) • Health care personnel • Prisoners, ex-prisoners and personnel working in penal institutions • People who abuse alcohol and/or drugs • People belonging to socially vulnerable populations, such as homeless, unemployed or migrants.
Risk factors for developing TB disease	<ol style="list-style-type: none"> 1. Presence of primary infection 2. Decreased immunity (immunodeficiency) <p>Risk Groups</p> <ul style="list-style-type: none"> • People recently infected (within the first 2 years after infection) • People with X-ray abnormalities indicating TB in the past • People with HIV infection • People who are immunocompromised due to other medical conditions (e.g., persons receiving cytostatics, radiation or corticosteroids, with diabetes mellitus or gastric and duodenal peptic ulcer) • Active smokers • People with a decreased body weight (10% or more below ideal body weight) • People who abuse alcohol and/or drugs • People belonging to socially vulnerable populations, such as the homeless, unemployed or migrants • Prisoners, ex-prisoners and personnel working in penal institutions • People sharing residential accommodations with a TB patient (e.g., apartments, hostels or social care homes).

Primary Evaluation of Patients

To conduct a primary evaluation of a patient presenting with symptoms suggestive of TB:

1. **Obtain** an accurate medical history.
2. **Complete** a physical exam.
3. **Ensure (or refer to appropriate services for)**
 - **AFB microscopy** of three good quality sputum smears; and
 - **Chest X-ray** examination.
4. **Refer** the patient to the nearest facility in which a TB diagnosis can be confirmed or ruled out.

Determining the Medical History of a TB Suspect

Symptoms of TB	<p>Determine if the patient has any of the following symptoms of pulmonary TB. These include:</p> <ul style="list-style-type: none"> • Respiratory symptoms: <ul style="list-style-type: none"> – Cough for more than 2 - 3 weeks – Chest pain – Shortness of breath – Coughing up blood • Other symptoms <ul style="list-style-type: none"> – Weight loss – Tiredness – Fever – Night sweats – Loss of appetite <p>Determine if the patient has any general or local symptoms of extra pulmonary TB:</p> <ul style="list-style-type: none"> • General symptoms of weight loss, fever, or night sweats; • Local symptoms depend on the organs involved. Examples include: <ul style="list-style-type: none"> – Lymph node involvement: swelling, occasionally with pus drainage; – TB of the joints: pain and swelling of the joints; – Tuberculous meningitis (usually in children): headache, fever, stiffness of the neck and drowsiness; and – TB of the urinary tract: blood in the urine.
Exposure to TB	<p>Determine if the patient (currently or in the past) lives, works or spends time with anyone who has TB or TB symptoms.</p>
History of TB	<p>Determine if the patient has ever been diagnosed with TB infection or disease and whether he or she has taken anti-TB drugs. If the patient has a history of TB, the possibility of relapse must be considered.</p> <ul style="list-style-type: none"> • If a patient has had TB disease before, determine when and how the disease was treated. • This information will be vital for proper design of a chemotherapy regimen by a TB specialist. <ul style="list-style-type: none"> – -- Patients have a higher risk for acquired resistance to one or more of the standard anti-TB drugs. – --Risk is highest if the regimen prescribed in the past was inadequate or the patient did not adhere to the recommended treatment.
Risk factors for TB disease	<p>Determine if the patient belongs to one or more of the groups at high risk for developing TB.</p>

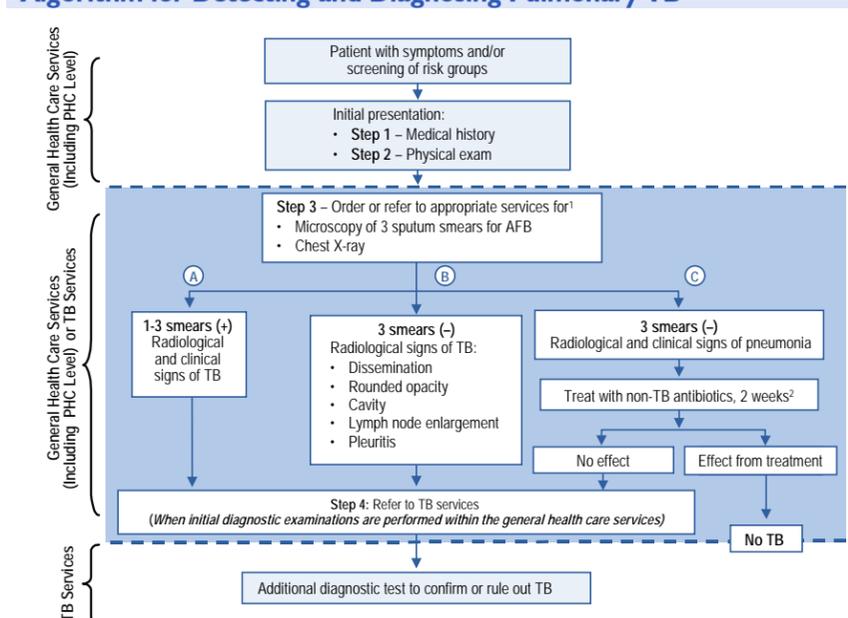
Essential Anti TB Drugs (Prescribed by TB Services)

H = Isoniazid
R = Rifampicin
Z = Pyrazinamide
E = Ethambutol
S = Streptomycin

Overview of Adverse Effects and Their Management

Minor Adverse Effects			
Signs and Symptoms	Adverse Reaction	Caused by	Management
Orange urine, sweat, or tears Permanently stained soft contact lenses	Discoloration of body fluids	Rifampicin	<ul style="list-style-type: none"> • Immediately inform the district TB specialist about the reported adverse effects • Give recommendations to address side effects (agreed with the district TB specialist) such as not wearing soft contact lenses, using alternate methods of birth control, and wearing sunscreen or avoiding exposure to the sun. • Reassure the patient that this adverse effect occurs at times, and treatment should continue.
Interferes with certain medications, such as birth control pills, birth control implants, and methadone treatment	Drug interaction	Rifampicin	
Frequent sunburn	Sensitivity to the sun	Rifampicin	
Major Adverse Effects			
Signs and Symptoms	Adverse Reaction	Caused by	Management
Skin rash	Allergic	Any drug	<ul style="list-style-type: none"> • Immediately stop the suspected causal anti-TB drugs and inform the district TB specialist • Immediately refer the patient to TB services (and send to emergency services if necessary)
Blurred or changed vision Changed color vision	Eye damage	Ethambutol	
Abdominal pain Abnormal liver function test results Dark urine Fatigue Fever for 3 or more days Flu like symptoms Lack of appetite Nausea Vomiting Yellowish skin or eyes	Hepatitis	Isoniazid Pyrazinamide Rifampicin	
Dizziness Tingling or numbness around the mouth	Nervous system damage	Isoniazid	
Tingling sensation in hands and feet	Peripheral neuropathy		
Stomach upset, vomiting, lack of appetite	Upset stomach	Pyrazinamide	
Abnormal uric acid level Joint aches	Increased uric acid		
Easy bruising Slow blood clotting	Bleeding problems	Rifampicin	
Balance problems Hearing loss Ringing in the ears	Ear damage	Streptomycin	
Abnormal kidney function test results	Kidney damage		

Algorithm for Detecting and Diagnosing Pulmonary TB



¹ In many areas the initial sputum microscopy and X-rays, Step 3, are conducted by PHC providers within the general health care services. In other areas, these activities are conducted within TB services. Shading between the dotted lines is used to indicate areas where the responsibilities may occur either in the general health care services or the specialized TB services. Where national guidelines instruct to do so, and facilities exist, PHC providers should perform initial diagnostic tests noted in shaded areas between the dotted lines.

² A treatment course with broad-spectrum antibiotics should not include anti-TB drugs (including streptomycin, rifampicin, and fluoroquinolones).

Patient Education and Adherence

- **Use** effective communication techniques:
 - Be empathetic
 - Listen carefully and ask questions
 - Try to understand a patient's worries or needs
 - Demonstrate a caring attitude and
 - Help to solve the disease-related problems.
- **Emphasize** that TB is curable, with the proper drugs taken the proper way.
- **Learn** about the patient's family and social situation.
- **Educate** the patient and the whole family about TB.
- **Provide** written or other resource information to the patient, in addition to person-to-person education.
- **Continue** education for the patient throughout the entire course of treatment.
- **Reinforce** key messages throughout the patient's treatment, both to the patient and to family members.
- **Help** the patient understand TB transmission, how to stop spread of disease, and the importance of treatment.