

TB Elimination

Targeted Tuberculosis Testing and Interpreting Tuberculin Skin Test Results

Introduction

The Centers for Disease Control and Prevention (CDC) and the U.S. Preventive Task Force (USPSTF) recommend testing populations that are at increased risk for tuberculosis (TB) infection. Once TB disease has been ruled out, those who would benefit from treatment of latent TB infection (LTBI) should be offered this option regardless of their age. Health care providers should encourage adherence and treatment completion.

Health care providers should consider several criteria when classifying positive TST reactions.

Table 1: Criteria for Classifying Positive TST Reactions

Positive IGRA result or a TST reaction of 5 or more millimeters of induration is considered positive in

- » HIV-infected persons
- » Recent contacts of a TB case
- » Persons with fibrotic changes on chest radiograph consistent with old TB
- » Organ transplant recipients
- » Persons who are immunosuppressed for other reasons (e.g., taking the equivalent of >15 mg/day of prednisone for 1 month or longer, taking TNF- α antagonists)

Positive IGRA result or a TST reaction of 10 or more millimeters of induration is considered positive in

- » Recent immigrants (< 5 years) from high-prevalence countries
- » Injection drug users
- » Residents and employees of high-risk congregate settings (e.g., correctional facilities, nursing homes, homeless shelters, hospitals, and other health care facilities)
- » Mycobacteriology laboratory personnel
- » Children under 4 years of age, or children and adolescents exposed to adults in high-risk categories

Positive IGRA result or a TST Reaction of 15 or more millimeters of induration is considered positive in

- » Persons with no known risk factors for TB*

** Although skin testing programs should be conducted only among high-risk groups, certain individuals may require TST for employment or school attendance. An approach independent of risk assessment is not recommended by CDC or the American Thoracic Society.*

Persons at Risk for Developing TB Disease

Generally, persons at high risk for developing TB disease fall into two categories: those who have an increased likelihood of exposure to persons with TB disease, and those with clinical conditions that increase the risk of progression from LTBI to TB disease.

Persons at risk for exposure to persons with TB disease include:

- Close contacts of a person with infectious TB disease
- Persons who have immigrated from areas of the world with high rates of TB
- Residents and employees of high-risk congregate settings (e.g., correctional facilities, homeless shelters, health care facilities)

Persons more likely to progress from LTBI to TB disease include:

- Recent converters (those with an increase of 10 mm or more in size of TST reaction within a 2-year period)
- HIV-infected persons
- Young children who have a positive TST result
- Those with a history of prior, untreated TB or fibrotic lesions on chest radiograph
- Injection drug users
- Those receiving TNF- α antagonists for treatment of rheumatoid arthritis or Crohn's disease

Clinical conditions that increase the risk of progression from LTBI to TB disease:

- HIV infection
- Low body weight (>10% below ideal)
- Silicosis
- Diabetes mellitus

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