

## Avoid testing persons at low risk

Routine testing of persons without risk factors is not recommended and may result in unnecessary evaluations and treatment because of falsely positive test results.

### Prioritize persons at risk for progression

If health system resources do not allow for testing of all non-U.S. born persons from a country with an elevated TB rate, prioritize patients with at least one of the following medical risks for progression:

- diabetes mellitus
- smoker within past 1 year
- end stage renal disease
- leukemia or lymphoma
- silicosis
- cancer of head or neck
- intestinal bypass/gastrectomy
- chronic malabsorption
- body mass index  $\leq 20$
- history of chest x-ray findings suggestive of previous or inactive TB (no prior treatment). Includes fibrosis or non-calcified nodules but not a solitary calcified nodule or isolated pleural thickening. Test for TB infection and if positive evaluate for active TB disease.

## U.S. Preventive Services Task Force (USPSTF)

The USPSTF has recommended testing persons born in or former residents of a country with an elevated TB rate and persons who live in or have lived in high-risk congregate settings such as correctional facilities, nursing homes and homeless shelters. Because the increased risk of exposure to TB in congregate settings varies substantially by facility and local health jurisdiction, clinicians are encouraged to follow local recommendations when considering testing persons from these congregate settings.

The USPSTF did not review data supporting testing among close contacts to persons with infectious disease or among persons who are immunosuppressed because these persons are recommended to be screened by public health programs or clinical standards of care.

## Children

This risk assessment tool is intended for adults. A separate risk assessment tool for children is also available on our [website](#).

## Mandated testing

Certain populations may be mandated for testing by statute, regulation, or policy. This risk assessment does not supersede any mandated testing for healthcare workers, school employees or volunteers, and residents or employees in congregate settings such as correctional institutions, nursing homes, homeless shelters and others.

## Age as a factor

Age (among adults) is not considered in this risk assessment. However, younger adults have more years of expected life during which progression from TB infection to active TB disease could develop. Some programs or clinicians may prioritize testing of younger non-U.S. born persons when all non-U.S. born persons are not tested. An upper age limit for testing has not been established but could be appropriate depending on individual patient TB risks, comorbidities, and life expectancy.

## Foreign travel or residence

Travel or residence in countries with an elevated TB rate may increase the risk for TB exposure in certain circumstances (e.g. extended duration, likely contact with persons with infectious TB, high prevalence of TB in travel location and non-tourist travel). The duration of at least one consecutive month to trigger testing is intended to identify travel or residence most likely to involve TB exposure. TB screening tests can be falsely negative within eight weeks after exposure, so results are best obtained eight weeks after return from travel.

## When to repeat a test

Re-testing should only be done in persons who previously tested negative and have new risk factors since the last assessment. Such risk factors include new close contact with an infectious TB case, new immunosuppression, and can also include foreign travel in certain circumstances.

## When to repeat a risk assessment

The risk assessment should be administered at least once. Persons can be screened for new risk factors at subsequent preventive health visits.

## IGRA preference in BCG vaccinated persons

Because IGRA tests have increased specificity for TB infection in persons vaccinated with BCG, an IGRA is preferred over the tuberculin skin test (TST) in these persons. Most persons born outside the U.S. have been vaccinated with BCG.

## Previous or inactive tuberculosis

Chest x-ray findings consistent with previous or inactive TB include fibrosis or non-calcified nodules, but do not include a solitary calcified nodule or isolated pleural thickening.

Persons with a previous chest x-ray showing findings consistent with previous or inactive TB should be tested for TB infection and evaluated for active TB disease.

## A negative test for TB does not rule out active TB disease

It is important to remember that a negative IGRA or TST result does not rule out active TB disease. In fact, a negative IGRA or TST in a patient with active TB disease can be a sign of extensive disease and poor outcome.

## Symptoms that should trigger evaluation for active TB disease

Patients with any of the following symptoms that are otherwise unexplained should be evaluated for active TB disease: cough for more than two to three weeks, fever, night sweats, weight loss, and hemoptysis.

## How to evaluate for active TB disease

Evaluate for active TB disease with a chest x-ray, symptom screen, and – if indicated – sputum AFB smears, cultures and nucleic acid amplification testing. A negative IGRA or TST does not rule out active TB disease.

## Most patients with TB infection should be treated

Persons with risk factors who test positive for TB infection should generally be treated once active TB disease has been ruled out. However, clinicians should not feel compelled to treat persons who have no risk factors but test positive for TB infection.

## Emphasis on short course treatment of TB infection

Shorter regimens for treating TB infection have been shown to be as effective as 9 months of isoniazid and are more likely to be completed. Use of these shorter regimens is preferred in most patients. Drug-drug interactions and contact to drug-resistant TB are typical reasons these regimens cannot be used. Additional studies are needed to understand the safety of 3HP during pregnancy.

## Shorter duration treatment regimens

Medication	Frequency	Duration
Isoniazid + rifapentine (3HP)	Weekly	12 weeks <sup>1</sup>
Rifampin	Daily	4 months <sup>2</sup>

<sup>1</sup> 11-12 doses must be taken in 16 weeks for treatment completion

<sup>2</sup> 120 doses must be completed in 6 months for treatment completion

Current recommendations concerning the administration of 3HP are available on our [website](#).

## Patient refusal of recommended TB infection treatment

Refusal should be documented. Recommendations for treatment should be made at future encounters with medical services. If treatment is later accepted, TB disease should be excluded, and a chest x-ray repeated if it has been more than six months since the initial evaluation, or more than three months if there is immunosuppression, or the prior chest x-ray was abnormal and consistent with potentially active TB disease.

## Resources

Fact sheets for the TB infection regimens 3HP, rifampin alone and isoniazid alone are available at: <https://www.cdc.gov/tb/topic/treatment/ltbi.htm>

U.S. Preventive Services Task Force Latent TB Infection Screening Recommendations are available at: <https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/latent-tuberculosis-infection-screening>