MDHHS
Michigan Department of Health & Human Services

Michigan Adult Tuberculosis Risk Assessment

Use this tool to identify & prioritize asymptomatic adults for latent TB infection (LTBI) testing
Do not repeat testing unless there are new risk factors since the last test
Do not treat for LTBI until active TB disease has been ruled out‡

Provider Name: ______________________________ Assessment Date: ______________

Patient Name: ______________________________ DOB: ______________________

TB testing is recommended if any of the boxes below are checked

☐ **Birth, travel, or residence** in a country with an **elevated TB rate** for at least 1 month

- Includes any country other than the United States, Canada, Australia, New Zealand, or a country in western or northern Europe
- Prioritize patients with at least one medical risk for progression (see User Guide on page 2 for this list)
- Interferon Gamma Release Assay (IGRA) is preferred over Tuberculin Skin Test (TST) for non-U.S.-born persons ≥2 years old

☐ **Immunosuppression**, current or planned
HIV infection, organ transplant recipient, treated with TNF-alpha antagonist (e.g., infliximab, etanercept, others), steroids (equivalent of prednisone ≥15 mg/kg/day for ≥1 month) or other immunosuppressive medication

☐ **Close contact** to someone with infectious TB disease during lifetime

Treat for LTBI if TB test result is positive and active TB disease is ruled out‡

☐ **None**; no TB testing is indicated at this time

TB test ordered?	Yes	No	
If YES, type?	TST	IGRA	
Test result	Neg	Pos	If TST, ______ mm
Medical evaluation / CXR recommended	Yes	No	

‡ *For patients with TB symptoms or abnormal CXR consistent with active TB disease, evaluate for active TB disease with a CXR, symptom screen, and if indicated, sputum acid-fast bacilli (AFB) smears, cultures and nucleic acid amplification testing (NAAT).*

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Prioritize persons with risks for progression

If health system resources do not allow for testing of all non-US-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 year
- end-stage renal disease
- leukemia or lymphoma
- silicosis
- cancer of head or neck
- intestinal bypass/gastrectomy
- chronic malabsorption
- body mass index ≤20
- history of CXR findings suggestive of previous or inactive TB (no prior treatment). Includes fibrosis or noncalcified nodules but does not include solitary calcified nodule or isolated pleural thickening. In addition to LTBI testing, evaluate for active TB disease.

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 false-positive test results.

When to repeat a risk assessment & test

The risk assessment should be administered at least once. Persons can be screened for new risk factors at subsequent preventive health visits. Re-testing should only be done in persons who previously tested negative and have new risk factors since the last assessment.

IGRA preference in BCG vaccinated

Because IGRA has increased specificity for TB infection in persons vaccinated with BCG, IGRA is preferred over the TST in these persons. Most persons born outside the US have been vaccinated with BCG.

Mandated testing

Certain populations may be mandated for testing by state regulation (e.g., healthcare workers, residents or employees of correctional institutions, substance abuse treatment facilities, homeless shelters, etc.) This risk assessment was created to focus testing on patients at highest risk and does not supersede mandated testing. Please refer to the Michigan Department of Licensing and Regulatory Affairs (LARA) for more information about TB screening regulation in Michigan.

Foreign travel or residence

Travel to countries with an elevated TB rate may be a 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, non-tourist travel). The duration of at least 1 consecutive month to trigger testing is intended to identify travel most likely to involve TB exposure. TB screening tests can be falsely negative within the 8 weeks after exposure, so are best obtained 8 weeks after return from travel.

A negative TB test does not rule out active TB disease

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

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 2-3 weeks, fevers, night sweats, weight loss and hemoptysis. Evaluate for active TB disease with a CXR, symptom screen and if indicated, sputum AFB smears, cultures and NAAT. A negative TB test does not rule out active TB disease.

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Age as a factor

This risk assessment tool is intended for adults. A risk assessment tool created for children is available on our website.

Age (among adults) is not considered in this risk assessment. However, younger adults have more years of expected life during which progression from latent infection to active TB disease could develop. Some programs or clinicians may additionally prioritize testing of younger non-US-born persons when all non-US-born are not tested.

LTBI treatment

Persons with LTBI and risk factors for progression to active TB disease should be offered treatment, once active TB disease has been ruled out.

Shorter regimens for treating LTBI 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.

CDC Recommended LTBI treatment regimens

Medication	Frequency	Duration	Doses
Isoniazid & Rifapentine	Weekly	12 weeks	12*
Rifampin	Daily	4 months	120
Isoniazid	Daily or 2x weekly	6–9 months	52-270

**11-12 doses in 16 weeks required for completion*

Refusal of recommended LTBI 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 CXR repeated if it has been more than 6 months from the initial evaluation; or more than 3 months if there is immunosuppression.

Resources & References

- Treatment regimens for LTBI available on the CDC LTBI Resources website (www.cdc.gov/tb/topic/treatment/ltbi.htm)
- US Preventive Services Task Force Latent TB Infection Screening Recommendations are available on the US Preventive Services Task Force website (www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/latent-tuberculosis-infection-screening)
- This pamphlet was adapted from the California Adult Tuberculosis Risk Assessment and User Guide, created by the California TB Controllers Association, the California Department of Public Health, and the Curry International Tuberculosis Center (www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/TBCB-CA-TB-Risk-Assessment-and-Fact-Sheet.pdf)

Abbreviations

AFB, acid-fast bacilli; BCG, Bacillus Calmette-Guérin; CXR, chest x-ray; IGRA, interferon gamma release assay; LARA, Licensing and Regulatory Affairs; LTBI, latent TB infection; NAAT, nucleic acid amplification testing; TST, tuberculin skin test

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