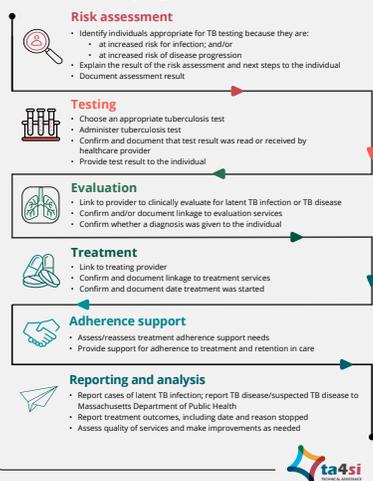


COMPONENT E:

Adherence Support

Components for Testing and Treatment of Individuals with Latent Tuberculosis (TB) Infection



This resource provides an overview of medication adherence support for latent TB infection. It is intended for clinical and non-clinical staff from agencies in Massachusetts providing latent TB infection services. The following topics will be discussed:

- What is adherence support for latent TB infection?
- Why is adherence support important?
- What key considerations should I know to manage adherence support for latent TB infection?
- How to communicate with individuals about adherence support?
- What are best practices to support individuals to adhere to treatment for latent TB infection?
- What data considerations should I be aware of for providing adherence support to individuals on latent TB infection treatment?

What is adherence support for latent tuberculosis (TB) infection?

Adherence support refers to a health care team's activities to engage with an individual to encourage and support the individual to complete latent TB infection treatment. A separate [Fact Sheet on Component D: Treatment](#) summarizes information on latent TB infection treatment for agencies funded to provide integrated infectious disease services in Massachusetts. You can find additional resources on treatment in the [Resources Guide](#).

Adherence support is a collaborative effort between the individual, the individual's personal support network (family, friends), the prescribing clinician, nurses and other members of the interdisciplinary care team (e.g. community health workers, case managers, support service providers), and pharmacists. Each person plays an important role in assisting the individual to adhere to, and ultimately complete, treatment for latent TB infection.

This Fact Sheet provides an overview of adherence support, including best practices, so agencies can plan appropriately for making adherence support part of their latent TB infection services. While it also provides information on common barriers and solutions to support adherence, providers and individuals seeking care may have experience with other barriers and solutions for adherence support. This Fact Sheet includes resources and strategies that can be used to implement adherence support services, or to adapt adherence support systems your program may already have in place for individuals taking treatment for other conditions such as HIV or hepatitis C.



Why is adherence support for latent TB infection treatment important?

According to Center for Disease Control and Prevention ([CDC](#)), there are several reasons why individuals with latent TB infection should complete the treatment as prescribed:

- As long as TB germs are in the body, they can begin to multiply and cause disease.
- Certain individuals are at especially high risk for progression to TB disease. They include individuals with recent TB infection and certain medical conditions, and those taking medication that may alter immunity.
- Completing treatment for latent TB infection can reduce the risk of TB disease by 90%.
- TB infection is treated with one or two drugs, whereas treatment of TB disease initially requires four drugs.

Individuals receiving latent TB infection treatment may experience challenges resulting in the need for adherence support at some point during the course of treatment. These challenges can present at any time, sometimes unexpectedly. Certain individuals, such as persons experiencing homelessness or substance use disorder, children, elderly individuals, persons born outside the U.S., and/or migrant workers may experience unique challenges and have needs that require special consideration.

For any individual receiving latent TB infection treatment, barriers to adherence can be present. Examples of barriers include inconvenient location or hours of operation of the clinic or agency providing services, availability of transportation to services, linguistic and cultural competence of clinic or agency staff, stigma surrounding TB, and health insurance eligibility/coverage. Other barriers might be the duration of treatment, side effects, health literacy about latent TB infection, and costs associated with receiving services (transportation, childcare, time away from work).

Case management and/or additional supports may be necessary in helping individuals adhere to their treatment and medical appointments. Table 1: Barriers and Possible Solutions for Adherence Support, at the end of this document, lists several common barriers to latent TB infection treatment adherence, and best practices to assist individuals in overcoming these barriers.



What strategies and considerations can help manage adherence support for latent TB infection?

There are several factors and strategies health care providers should be aware of that can impact an individual's ability to adhere to treatment. Clinical factors that affect treatment adherence include what kind of treatment regimen they are prescribed, and whether they must have treatment administered via Directly Observed Therapy (DOT) or not. General strategies to promote adherence include working with individuals to assess their adherence challenges, providing counseling and education to address individual's knowledge and skills, and identifying practical solutions for adherence challenges.

- **Regimen:** CDC and the Massachusetts Department of Public Health (MDPH) recommend prescribing short-course therapies when possible as it is generally easier for individuals to complete shorter medication regimens than longer ones. The short-course regimens are isoniazid + rifapentine (3HP) once weekly for 3 months (12 doses, observed), or rifampin daily for 4 months (4R). CDC has developed

a Medication Tracker and Symptom Checklist for each of the short-course regimens ([3HP](#), [4R](#)) that can be used with individuals on those regimens, whether they take the treatment via Directly Observed Therapy (DOT) or self-administered therapy.

- **Administration of medication:** Treatment for latent TB infection is administered via Directly Observed Therapy (DOT), or via self-administered therapy (SAT).

Directly Observed Therapy (DOT) requires a trained health worker to observe an individual taking medication(s). In the context of having latent TB infection, the purpose of DOT is to ensure the individual is taking the medication(s) as prescribed and to monitor for medication side effects. Because missed doses, altered dosing intervals, or incorrect amounts of drug taken could jeopardize treatment efficacy or safety, DOT is recommended for intermittent regimens (e.g., 3HP) or with individuals who frequently miss doses, appointments, or medication refills. DOT is also recommended for individuals who are at particularly high risk of progressing to TB disease (e.g., children).

The alternative to DOT is SAT. Providers should regularly discuss adherence support plans with each patient who is on self-administered therapy, and identify one or more strategies that will work for the individual patient. For example, a provider can counsel the individual to:

- Keep medicine in one place so they know where it is
- Take medication at the same time every day (after brushing teeth, before bed)
- Use a pill box to keep organized
- Use a calendar to check off days when they take their medicine
- Ask a family member or friend to help them remember

One example of a tool that can help you review these strategies with individuals on latent TB infection treatment is this worksheet MDPH developed called "[Keep taking your TB medicine.](#)"

- **Assessment of adherence challenges:** No matter what treatment regimen the individual is taking, or if it is being administered via DOT or SAT, each individual should be carefully assessed for adherence challenges. Considerations to include when assessing adherence may include awareness of latent TB infection diagnosis, understanding of the diagnosis, what the individual's daily routine is, accessibility issues, and psycho-social issues. Once challenges are identified, members of the health care team can help the individual choose a tailored support approach to address adherence.
- **Follow-up visits:** MDPH recommends that all individuals receiving latent TB infection treatment have at least a monthly clinical assessment. The focus of these assessments is patient safety, including review of side effects, and adherence. As such, the monthly clinical assessment provides an opportunity to explore adherence through open-ended questions and joint solutions to addressing challenges.

During follow-up visits between the individual and the health care provider, the provider can review adherence support methods the individual has been using, and work with the individual to make adjustments to the methods if needed. This conversation could also occur between the individual and a community health worker, or other members of a multidisciplinary care team, consistent with your agency's protocols regarding adherence support.



How should I communicate with individuals about adherence support for latent TB infection treatment?

Communicating with individuals about the importance of adhering to latent TB infection treatment is crucial to supporting individuals who are being treated for latent TB infection. CDC recommends the following action steps for [effective latent TB infection health education](#):

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- Have materials available in the individual's primary language, and at an appropriate literacy level
 - Emphasize the importance of adhering to treatment
 - Describe symptoms of possible adverse effects, and provide instructions for how to address possible side effects if symptoms occur
 - Give clear instructions regarding side effects, when and how (e.g., dedicated phone number) to report side effects to a health care provider, and when to stop taking medications
 - Include the individual's family in health education whenever possible, because they can offer support
 - Reinforce educational messages about the importance of treating latent TB infection at each visit
 - Reassess adherence and support needs at each visit
 - Allow opportunities for questions and answers
 - Provide encouragement to motivate individuals to take steps to stay healthy



The [Resources Guide](#) includes tools providers can use to explain TB infection to individuals. In addition, CDC has put together a useful pamphlet focused on adherence called "[Staying on Track with Tuberculosis Medicine](#)". The MDPH TB webpage has a series of [brief materials in 23 languages for patients, plus a tip sheet for providers](#) to help patients understand basic information about TB infection, encourage dialogue between patients and providers, and motivate patients to start and complete treatment. The materials are designed to be used as a series, as they build upon each other.



What are best practices to support individuals to adhere to treatment for latent TB infection?

All individuals receiving latent TB infection services (testing, evaluation, and treatment) benefit from adherence support at some point during the process to encourage retention in care and treatment completion. The table below lists common systems-level and individual-level barriers that individuals may face in adhering to their medication regimen for latent TB infection. The table also includes possible strategies to address each barrier.

Your agency may have already identified some adherence support activities that help with adherence to treatment for TB infection. In addition, you may have experience with adherence support strategies for individuals taking treatment for other infectious diseases such as HIV or hepatitis C, which can be adapted for latent TB infection.

When discussing the barriers and solutions below with individuals, it is best to approach this communication as a conversation with each individual, and make sure there is time for them to ask questions. You should also check that they understand what you're telling them. Some approaches to do this include the [Teach-Back method](#), and the [Ask Me 3 method](#).

Table 1: Example Barriers and Potential Solutions for Adherence Support

Example Barriers	Potential Solutions
<i>Location of agency</i>	
Physical location of the clinic may make getting to appointments challenging	<p>Refer individuals to agencies in a more convenient location. Agencies can also consider providing services on site.</p> <p>Provide transportation assistance, such as bus tokens or cab fare to help individuals more readily complete therapy or attend directly observed therapy (DOT) or other in-person appointments related to their TB care.</p> <p>Consider accompanying patients for the first visit to help them navigate the physical location.</p> <p>Explore which locations have navigation services available, and provide or arrange for navigation assistance at the clinical site.</p> <p>Consider scheduling certain follow-up appointments as telehealth visits, especially in line with COVID-19 mitigation strategies.</p>
<i>Appointment times</i>	
Appointment times may not be convenient for working individuals, or for individuals with child/elder care or other responsibilities	<p>Offer flexible appointment times and/or open hours that encourage individuals to “just come in” within a designated structure, such as having one day a week set aside for walk-in appointments. This allows the agency to schedule the right staff to be available at the right day to meet with individuals, while giving individuals flexibility in timing, and allows for tracking and follow-up of missed appointments/days.</p> <p>Offer a flexible, judgment-free approach to rescheduling appointments or to finding time for those who arrive late.</p> <p>Establish systems for the clinic or individuals to call ahead to the pharmacy so the medications can be prepared ahead of time and ready for pick-up.</p> <p>Consider scheduling certain appointments that do not require lab tests or in-person consultation as telehealth visits, especially in line with COVID-19 mitigation strategies.</p>

Example Barriers Potential Solutions

Limited financial resources

Individuals may have lost insurance coverage or be uninsured, and/or may be unable to pay for services and medications

Assist eligible individuals in getting health insurance.

For individuals who cannot get health insurance, assist them to:

- Arrange no-cost pro-bono visits.
- For safety net eligible patients, arrange visits with safety net providers.
- Determine eligibility for services via the [Health Safety Network](#).

For all individuals, but especially for those who may be unable to pay for medications, assist them to connect with the TB Drug Assistance Program (TBDAP) pharmacy, if available through your agency. To find out more, visit the [TBDAP website](#).

Consider scheduling certain follow-up appointments as telehealth visits to reduce costs for the individual related to transportation, child care, time off of work.

Stigma

Individuals may experience stigma from the community, stigma from providers and staff, and/or internalized stigma (i.e., negative feelings or thoughts about themselves) about latent TB infection

Ensure that providers and staff understand what stigma is and how to reduce stigma in latent TB infection services.

Reinforce messages that latent TB infection can occur in anyone, that latent TB infection can be treated, and that people with a diagnosis of latent TB infection deserve respectful care, just as people with any other condition.

Display posters about TB infection.

Use regular, clear, and consistent communication with individuals on latent TB infection treatment, and allow time for them to ask questions and express their thoughts.

Provide education on latent TB infection and active TB disease to the individual and to family members and friends if needed. If available, offer the individual and family/friends different ways to receive this education -- verbal, written, video.

Store DOT medications at the clinic if individuals are concerned about privacy issues at home or about misplacing them.

Conduct community education sessions on latent TB infection.

Use the [cultural and linguistic competency standards](#) to conduct regular training and coaching of staff and ensure that services provided are aligned with these standards.

Duration of therapy

Longer treatment regimens can make treatment completion difficult

Remembering to take medications daily can be challenging

Offer shorter treatment options for individuals who are eligible.

Consider the 12-dose regimen, if self-administering seems challenging.

Discuss and identify a routine activity every day such as a specific meal or brushing teeth when the individual could also take their medication so that it happens at the same time every day and becomes a habit.

Discuss what kind of reminder would

Example Barriers Potential Solutions

work and set it up if needed. Examples of reminders include phone reminders, alarms via phone/watch/alarm clock, medication reminder smartphone apps, notes to self, and pill boxes with days of the week. If available at your agency, you could also establish regular check-ins with a Community Health Worker or a Peer Navigator.

Engage individuals in completing a care plan that outlines the individual's treatment regimen, how the clinic/agency will help support them through treatment, and what they need to do to successfully complete treatment.

Medication side effects

Side effects may occur which are unpleasant and/or may indicate a larger problem with the medication

Make sure individuals understand which side effects may occur, how to address minor side effects (e.g., taking medication with food), and when to contact a provider.

Discuss strategies that an individual can use to address minor side effects (e.g., taking at bedtime).

Establish regular check-ins to talk about how the individual is feeling while taking meds and reinforce that they should feel as they normally do when they take the meds. Discuss the best modality (e.g., text message, chat-in app, phone call) for the individual to use for these check-ins.

Let the individual know that if they do not feel "right" when taking the meds, they should call the clinic and stop the meds.

Make sure that the individual, and the staff who provide support, know who to call with questions/concerns, and the number. If possible, set up a dedicated or direct-to-nurse number.

Change medication(s) if needed.

Individual not sure treatment is necessary

Individuals may have different beliefs and understanding that do not align with CDC and MDPH treatment recommendations. For example:

- Why treatment is being recommended when there are no TB symptoms
- How BCG may not always protect people from TB infection

Provide individuals with information about latent TB infection, the risk of progressing to TB disease, and the effectiveness of latent TB infection treatment. If available, offer the individual different ways to receive this information such as verbal reminders, written reminders, or information through a video.

Use regular, clear, and consistent communication with individuals on latent TB infection treatment, and allow time for them to ask questions and express their thoughts.

Allow time for individuals to ask questions at each encounter.

Use the [cultural and linguistic competency standards](#) to conduct regular training and coaching of staff and ensure that services provided are aligned with these standards.

See other messages included above, as well as in the [Fact Sheet for Component D: Treatment](#).



What data considerations should I be aware of for providing adherence support to individuals on latent TB infection treatment?

The table below includes the indicators that are considered key measures of performance of services to support adherence to latent TB infection treatment. For each indicator, the table has information on whether the relevant data used to calculate the indicator are required to be reported to MDPH or recommended to be collected (but not reported to MDPH), as well as information on where to record these data. To learn more about collecting and reporting data, please review the [Component F Fact Sheet: Reporting and Analysis](#).

Table 2: Indicators for Adherence Support

Type of Indicator	Indicator	Data for this indicator are <u>required</u> to be reported or are <u>recommended</u> to be collected?	Where to record this data
Process Indicator	# Individuals who received focused treatment adherence support (beyond routine follow-up)	Required to be reported if BIDLS funding supports treatment adherence activities; otherwise Recommended to be collected	Syringe Services / Short-Term Health Navigation (STHN / PrEP Form
Process Indicator	# Follow-up monitoring events (e.g., visits, calls, text messages) conducted per individual	Recommended to be collected	Electronic health record (EHR), other database
Outcome Indicator	#/% Individuals completed treatment (among those initiated)	Required to be reported	EHR, other database, BIDLS-generated line lists
Outcome Indicator	% Patients retained in care	Recommended to be collected	EHR, other database

For information about how to use process mapping to provide adherence support for individuals on latent TB infection treatment, please see the Fact Sheet on "[Process Mapping for Latent TB Infection Services](#)."