REVISITING DOT: BEST PRACTICES IN DIRECT OBSERVATION THERAPY AND COMMUNITY ENGAGEMENT FOR TUBERCULOSIS

Division of Global Populations and Infectious Disease Prevention
Bureau of Infectious Disease and Laboratory Sciences
Department of Public Health
Welcome

• Partnership in early engagement in treatment and adherence with tuberculosis care is crucial in completing therapy.

• This webinar continues to build upon prior foundational training for
  o New local public health partners
  o Local public health nurses who haven’t provided TB case management recently
  o All who participate in the community management of persons with suspected and/or confirmed active tuberculosis
Division of Global Populations and Infectious Disease Prevention webinars

- Introduction to Tuberculosis
- Introduction to TB Disease Response and Case Management
- Introduction to TB Contact Investigations
- Tuberculosis Evaluation for Persons with Class A/B TB Conditions

Webinars and slides are archived in MAVEN Help [Division of Global Populations folder]
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Objectives

• Discuss landscape of care during pandemic
• Define Direct Observation Therapy (DOT)
• Review criteria for DOT
• Identify best practices for DOT
Changing Landscape of Case Management

- February 2020 our last in person conference with public health partners
- Two weeks later we went from a full in person case management and direct services support for persons with tuberculosis to rapidly changing to virtual work
Changes in Practice

- Developed new practices, mobile DOT (mDOT)
- Reviewed available technology
- Implemented new practices in the field
Revisiting DOT

- Review of Definitions for Direct Observation Therapy (DOT)
- Review criteria for DOT
- Identify best practices and tools for DOT
What is DOT? Field-based Definition

• A trained health worker **observes** the patient *taking* and *swallowing* every dose of their prescribed TB drugs
  o Includes checking for side effects, documenting the visit, answering questions
  o Cannot be done by a family member

• **Best practice** for adherence and health monitoring
  o DOT is dynamic standard of care and is dependent on a patient’s clinical and behavioral status
What is DOT? Surveillance Definitions

- **Full DOT:**
  - DOT used for all doses for a patient who was taking medication 1-5 times a week OR if the patient was taking medication 7 times a week and DOT was used for at least 5 of those doses (i.e., patient self-administered on the weekend)

- **Partial DOT**
  - Applies if the patient self-administered any dose while taking medication 1-5 times a week, even if the rest of the doses were observed.

- For surveillance purposes, the # of weeks of FULL DOT are counted and reported to CDC. Weeks with partial DOT cannot be counted. Can include documented video/virtual DOT.
Benefits of DOT

• DOT with regular interactions between patients on therapy for tuberculosis enables early detection of side effects, medication interactions and adherence challenges

• Studies show that 86-90% of patients receiving DOT complete therapy, compared to 61% for those on self-administered therapy¹

• Collaborations with providers, state, and local public health

• Internationally accepted as a best practice for monitoring persons on therapy for tuberculosis.

Criteria for DOT – Active TB

- **Highly recommended:** DOT for any person with active/suspected active TB, if person:
  - Is a child or adolescent <19 years of age
  - Has TB that is resistant to INH+RIF (MDR-TB) or RIF
  - Is on a complex regimen for tuberculosis
  - Is currently experiencing homelessness
  - Has a previous history of TB disease
  - Has a history of non-adherence
  - Is on intermittent therapy
  - Is sputum smear-positive (until conversion)
  - Has difficulty taking pills independently due to physical, mental or emotional instability
  - Is unlikely to take medications on their own
Criteria for DOT - Contacts

- **Recommend**: DOPT for any person who is a contact to a person with infectious TB, if the person:
  
  - Is a child or adolescent <19 years of age
  - Is on intermittent therapy, including short-course 3HP - **required**
  - Has severely compromised immunity
  - Is a documented converter
  - Has difficulty in taking pills independently due to physical, mental or emotional instability
  - Is unlikely to take medications on their own
Assessment Tools for DOT

- Develop the plan of care
  - Collect and review all patient information
  - Review medical notes
  - Discuss with hospital or clinic staff
- Use MAVEN Wizards
Formulating a DOT plan

- Use assessment/reassessment checklist to determine:
  - Whether to start a patient on DOT
  - Whether to continue to provide DOT for a patient

In-person visits should be coordinated between the patient and the local public health nurse case manager for review of prescriptions, pill box refills, reviewing any concerns for adherence, side effects, and medication interactions
Public Health is relational

Person with TB diagnosis

- Review assessment tools
- Review clinical status
- Consult with partners
- Identify best DOT strategies
- Create a DOT plan
“Public Health is personal”

• Establish and develop new relationship with a patient, grounded by in-person encounters

• Coordinate an initial joint home visit with a community health worker, if applicable

Successful, ongoing DOT is a collaboration between the patients, local case managers, and MDPH TB Program Staff
Best Practices - Location

• DOT can be performed in a variety of settings including:
  o Home
  o Work
  o School
  o Other pre-determined settings where adherence is assured
Best Practices – adjusting a DOT plan

• Determine which DOT is best suited for the patient and their family
  o In-person
  o Hybrid in person/Synchronous video therapy (in real-time)
  o Hybrid in person/ Asynchronous video directly therapy (recording) – not currently in use

Successful DOT will always include an in-person component!
Things to Consider for mobile DOT

- Person has had in-person DOT for a minimum of 2 weeks with 100% adherence
  - Full treatment regimen is established, stable
  - Patient tolerates regimen

- The patient has consistent internet or network access, device
  - Mobile phone, tablet, laptop

- Demonstrates proficiency in using a virtual platform
Exclusion criteria for mobile DOT

- An impairment that limits full participation in mDOT
  - visual, hearing, physical, cognitive

- Multi drug-resistant (MDR) TB or extensively drug-resistant (XDR) TB
Criteria for re-establishing in-person DOT

• At risk for reduced adherence
  • Someone is not routinely available for mDOT at scheduled time

• At risk for hepatic complications while taking TB treatment

• Inconsistent network connectivity

• Limited literacy for use of video platform/application on personal equipment
Successful community case management requires collaboration, communication

- Timely notification if there are concerns in clinical care
- Timely consultation if there may be interruptions in therapy
- Timely strategizing for changes in DOT
Roles and Responsibilities

• Local Public Health Case Manager
  o Completes assessments and develops a plan of care
  o Discusses the DOT plan with the patient including:
    ▪ Method of DOT
    ▪ Time for DOT
    ▪ Location for DOT
  o Review prescriptions and fill pill boxes as ordered by provider
  o Observe for side effects and adherence and communicate with the medical provider
  o Document the DOT
    ▪ DOT weekly log
    ▪ MAVEN narrative notes
  o Collaborate with MDPH TB Program Staff
Voices from the Field – Best Practices

• Learn about your patient
• Build relationship and trust with your patient
  • Start where the patient is
    o DOT strategy that works for your patient
  • Communicate clearly
  • Listen actively
• Be on time and consistent
• Be nonjudgmental
Looking ahead

• The Division has long recognized the need for a robust tool kit that includes virtual DOT.
• We met with members of the local public health nurse community to discuss DOT, including virtual DOT.
• We now have the opportunity to procure a complete eDOT platform service.
• These strategies will help in strengthening best practices in TB Case Management.
Take Home Points

• Direct Observation Therapy is a demonstrated successful strategy in supporting persons diagnosed with presumptive or known active tuberculosis and practiced globally.

• Direct Observation is a preferred practice for certain individuals with latent TB infections such as contacts, young children, or individuals with high risk factors to progress to active disease.

• A DOT plan is a dynamic process from the start of therapy to completion of therapy.

• Successful DOT is a shared relationship between the patients, local case managers, and MDPH TB Program Staff.

DOT is a highly recommended strategy in successful treatment completion!
For more information

- Call the Division mainline at 617-983-6970
- Sergut.Wolde-Yohannes@mass.gov
- Patricia.Iyer@mass.gov
- Check out resources below
DPH Resources

- Archived trainings/resources in MAVEN Help
  - Division of Global Populations → Overview of Tuberculosis for LBOHs
  - Division of Global Populations (DGP) → TB DOT

- Technical Assistance, just-in-time training
  - Available throughout course of treatment - from early diagnosis to completion of therapy
  - Strategic planning for case management and DOT

- Community Health Worker support, when applicable

- Division of Global Populations main number: (617) 983-6970
General Resources

• CDC Division of TB Elimination - http://www.cdc.gov/tb/
  • Case Management, Treatment Guidelines and Required Treatment: https://www.cdc.gov/tb/programs/laws/menu/treatment.htm#treatmentGuidelines
  • Directly Observed Therapy: https://www.cdc.gov/tb/programs/laws/menu/treatment.htm#observedTherapy

• MDPH TB Program – www.mass.gov/tuberculosis

• In-Person vs Electronic Directly Observed Therapy for Tuberculosis Treatment Adherence
  • https://www.cdc.gov/tb/publications/letters/2022/journal-ama.html
  • https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2788246