Next Steps for Latent TB Infection
Events in MAVEN:
The LBOH LTBI Priority Follow-Up Workflow

Laura Smock
Epidemiologist
Division of Global Populations and Infectious Disease Prevention
September 6, 2019
Housekeeping

- The webinar is being recorded
- Use computer speakers/headset, or phone (landline) to listen
- Please shut off your cell phone and move it away from your computer
- Participant lines will be muted
- Use the Question Box for technical questions and/or speaker questions and comments
- I’ll review and answer the questions and comments that are submitted
Objectives

• Describe the workflow
• Identify priority populations in workflow
• Describe action steps for each population
• Review supportive documentation and resources
Who is in this workflow?

- Contacts
- Children
- Class B TB
Contacts

• Very high priority
• You should see notes in MAVEN from an epidemiologist
• Call 617-983-6970 and ask to speak with the epidemiologist who made the note, to discuss next steps for contact testing
• Local board of health nurse is the case manager for contacts
LBOH role

• As case manager, you support contacts through the required phases
  – first round testing
  – second round testing
  – referral for chest X-ray and evaluation
  – completion of LTBI treatment
  – timely reporting to DPH
TST vs IGRA

• Do TST if you know how to plant/read, and if your health department will perform multiple tests per month. DPH provides PPD to LBOH for contacts and class B

• Request a Quest lab order (617-983-6970) if:
  – You have infrequent use for PPD
  – You don’t know how to plant/read skin tests
  – TST is contraindicated

• TST model standing orders at https://www.mass.gov/tuberculosis

• See attached handout: Quest requests
Community Health Worker Support

• You may request outreach if you would like a community health worker for language support or adherence support
  – Call 617-983-6970 OR
  – MAVEN care plan/follow up question package
<table>
<thead>
<tr>
<th><strong>Outreach requested</strong></th>
<th>Yes ▼ Add New</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date outreach requested</strong></td>
<td>05/31/2019</td>
</tr>
<tr>
<td><strong>Person Requesting ORE Name (Retired)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Program Requesting Outreach</strong></td>
<td>BOH/TB Clinic ▼</td>
</tr>
<tr>
<td><strong>Outreach assigned</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Reason for Referral (Retired)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Reason for Referral?</strong></td>
<td>Joint Visit with LPH ▼</td>
</tr>
<tr>
<td><strong>Outreach Activity Date (Retired)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Outreach activity date</strong></td>
<td>MM/DD/YYYY</td>
</tr>
</tbody>
</table>
Children

• Most children in this workflow are here because of a positive IGRA or positive skin test
  – They have a healthcare provider already
    • You can call provider to confirm they have done an X-ray or referred for X-ray
      – If there is a provider name/number in admin question package or lab tab
      – Offer TB clinic contact info if needed [https://www.mass.gov/tuberculosis](https://www.mass.gov/tuberculosis)
    • You can call the family and offer support
  – Your assistance may be requested for DOT
### 10. ECR Information

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visit Date</td>
<td>01/01/2019</td>
</tr>
<tr>
<td>Has this event been flagged as a TB Disease event?</td>
<td>▼</td>
</tr>
<tr>
<td>Case ruled out:</td>
<td>▼</td>
</tr>
<tr>
<td>Race</td>
<td>▼</td>
</tr>
<tr>
<td>Is this case Hispanic?</td>
<td>▼</td>
</tr>
<tr>
<td>Current housing status</td>
<td>▼</td>
</tr>
<tr>
<td>Prescribing Provider</td>
<td></td>
</tr>
<tr>
<td>Primary Care Provider</td>
<td></td>
</tr>
<tr>
<td>Ordering Provider (Lab Test)</td>
<td></td>
</tr>
<tr>
<td>Managing Treatment Provider</td>
<td></td>
</tr>
<tr>
<td>MRN</td>
<td></td>
</tr>
<tr>
<td>Positive TST Reaction:</td>
<td>▼</td>
</tr>
<tr>
<td>Symptoms:</td>
<td></td>
</tr>
<tr>
<td>Medication prescribed:</td>
<td></td>
</tr>
</tbody>
</table>
Class B

- You should see notes in MAVEN from DPH about next steps
- Local board of health nurse is the case manager for class B arrivals
- Outreach will be requested for support
- DPH will send a welcome letter
- Types of TB classifications: Class B1, Class B0, Class B2, Class B3
Class B1 – No Treatment

- Assigned to persons who have a medical history, physical examination, HIV, or chest radiograph findings suggestive of pulmonary tuberculosis, but have negative AFB sputum smears and cultures and are not diagnosed with tuberculosis or can wait to have tuberculosis treatment started after immigration.
Class B1 - Extrapulmonary

- Assigned to persons with evidence of extrapulmonary tuberculosis based on a medical history, physical examination and clinical findings
- Patients may also have laboratory confirmation of the TB diagnosis
Class B1 Next Steps

• Arrange skin test or IGRA
• Contact TB clinic about referral requirements
  – Some want sputum
• Referral to TB clinic (or ID if HIV+, TST- and IGRA-)
  – Fax test result and overseas medical records
• Document appointment date, time, location in MAVEN and communicate this information with the patient
Class B0

- TB clinic referral is recommended for arrivals with a history of TB treatment by a panel physician overseas with complete treatment details. DOT will also be documented in the records.
Class B2 – LTBI Evaluation

- Assigned to persons (usually children less than 15 years of age and contacts) who have a TST $\geq$ 10 mm or positive IGRA, but otherwise have a negative evaluation for tuberculosis
Class B2 Next Steps

• Communication with family
• Refer to TB clinic for LTBI evaluation
  – Fax overseas medical records
• Document appointment date, time, location in MAVEN and communicate this information with the patient
Class B3

• Assigned to persons who had recent contact to a known tuberculosis case and who have had at least one TST or IGRA
Class B3 Next Steps

• Communication with patient
• TST or IGRA if a post-exposure test is still needed
  – Should be the same type of test used for the first test
• If the post-exposure test is positive, a referral to TB Clinic will be needed
  – Fax test result and overseas medical records
• Document appointment info in MAVEN and communicate the details with patient
LBOH role

- As case manager, you support new arrivals through the required phases
  - communication with patient
  - IGRA or skin test, if needed
  - referral for chest X-ray and evaluation
  - completion of LTBI treatment
  - TB worksheet to DPH
Massachusetts Class AB Tracking Checklist

The Division of TB Prevention and Control appreciates all efforts made to locate and evaluate new arrivals with Class AB conditions within 30 days of your receiving the notification packet. Please use this checklist as a guide for follow-up. If a new arrival cannot be located within 30 days, please fax this checklist to the TB Division together with the completed TB Follow-up Worksheet. If you successfully make contact and schedule a clinic visit, please fill in the date and time of the appointment where indicated below and fax this checklist to the TB Division. CONFIDENTIAL. FAX: 617-983-8540 OR 617-983-8990 ATTN: CLASS AB PROGRAM

<table>
<thead>
<tr>
<th>Arrival Name</th>
<th>DOB</th>
<th>MAVEN ID</th>
</tr>
</thead>
</table>

Packet Received – Date:

Review contents of packet and specific instructions for this specific TB Classification

Within 24 hours of receiving notification packet, attempt to initiate contact with new arrival. Use the guide below to help you.

If a phone number is included in the packet

<table>
<thead>
<tr>
<th>Call 1 – Date</th>
<th>Time</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact made</td>
<td></td>
<td>Set date for skin test and/or clinic appt</td>
</tr>
<tr>
<td>Message</td>
<td></td>
<td>If no callback – proceed to Call 2 within 7 days</td>
</tr>
<tr>
<td>No Answer</td>
<td></td>
<td>Proceed to Call 2 within 7 days</td>
</tr>
<tr>
<td>Incorrect #</td>
<td></td>
<td>Send Letter (below)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Call 2 – Date</th>
<th>Time</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact made</td>
<td></td>
<td>Set date for skin test and/or clinic appt</td>
</tr>
<tr>
<td>Message</td>
<td></td>
<td>If no callback – proceed to Call 3 within 7 days</td>
</tr>
<tr>
<td>No Answer</td>
<td></td>
<td>Proceed to Call 3 within 7 days</td>
</tr>
<tr>
<td>Incorrect #</td>
<td></td>
<td>Send Letter (below)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Call 3 – Date</th>
<th>Time</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact made</td>
<td></td>
<td>Set date for skin test and/or clinic appt</td>
</tr>
<tr>
<td>Message</td>
<td></td>
<td>Send Letter (below)</td>
</tr>
<tr>
<td>No Answer</td>
<td></td>
<td>Send Letter (below)</td>
</tr>
<tr>
<td>Incorrect #</td>
<td></td>
<td>Send Letter (below)</td>
</tr>
</tbody>
</table>

If no working phone number, or the new arrival does not respond after three attempts by phone

Send letter of introduction including Nurse’s name, phone number and brief explanation of process.

Date sent:

| Contact made |      | Set date for skin test and/or clinic appt |
| No response  |      | If resources allow proceed to home visit within 14 days. If not, fax checklist and completed TB Follow-up Worksheet to TB Division within 24 hours |

If resources allow and no response by any other method, visit new arrival’s home in person

| Visited new arrival at address provided in Class AB packet. | |
| Date: | |
| Contact made | Set date for skin test and/or clinic appt |
| No one home | Repeat if resources permit, otherwise fax checklist and completed TB Follow-up Worksheet to TB Division within 24 hours |
| Incorrect address | Fax checklist and TB Follow-up Worksheet to TB Division within 24 hours |

If contact is made with the new arrival during any of the above steps

| TST or IGRA Planted/Read (if required) | Date Read | Result: Positive / Negative |
| Clinic appointment Scheduled | Write Appointment date, time and clinic in box on right. Fax a copy of this checklist to the TB Division |
| New arrival refused care | Fax a copy of this checklist and the completed TB Follow-up Worksheet to the TB Division within 24 hours |

If the new arrival agrees to go to clinic

| Client does not show up to appointment | Reschedule appointment. If client continues non-compliance, fill out the TB Follow-up Worksheet and fax to the TB Division within 24 hours. |
| Client does not accept treatment for TB infection | Within 24 hours of receiving the TB clinic form from the clinic fill out and fax the TB Follow-up Worksheet to the TB Division |
| Client starts treatment | Monitor adherence for duration of therapy |
| Client completes treatment | Within 24 hours of notification from the clinic that the new arrival has completed therapy, fill out and fax the TB Follow-up Worksheet to the TB Division |
| Client begins but does not complete treatment | Within 24 hours of learning that the patient stops treatment and refuses to restart, fill out and fax the TB Follow-up Worksheet to the TB Division |

Form revised on 2-31-
## EDN TB Follow-Up Worksheet

Last reviewed: 6/21/2013

### A. Demographic

<table>
<thead>
<tr>
<th>A1. Name (Last, First, Middle):</th>
<th>A2. Alien #:</th>
<th>A3. Visa type:</th>
<th>A4. Initial U.S. entry date:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- A15a. Address:  
- A15b. Phone:  
- A15c. Other:  

#### B. Jurisdictional Information

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### C. U.S. Evaluation

##### Mantoux Tuberculin Skin Test (TST)

- C2a. Was a TST administered?  
  - Yes  
  - No  
  - Unknown

  - If YES, C2b. TST placement date:  
  - Placement date unknown

  - C2c. TST mm:  
  - Unknown

  - C2d. TST interpretation:  
  - Positive  
  - Negative  
  - Unknown

  - C2e. History of Previous Positive TST:  

##### Interferon-Gamma Release Assay (IGRA)

- C3a. Was IGRA administered?  
  - Yes  
  - No  
  - Unknown

  - If YES, C3b. Date collected:  
  - Date unknown

  - C3c. IGRA brand:  
  - Quantiferon®  
  - T-SPOT  
  - Other (specify):  

  - C3d. Result:  
  - Positive  
  - Negative  
  - Indeterminate  
  - Invalid  
  - Unknown

  - C3e. History of previous positive IGRA:  

#### U.S. Review of Pre-Immigration CXR

- C4. Pre-immigration CXR available?  
  - Yes  
  - No  
  - Not Verifiable

- C5. U.S. interpretation of pre-immigration CXR:
  - Normal
  - Abnormal (must select one below):
    - Not consistent with active TB
    - Non-cavitary, consistent with TB
    - Cavitary, consistent with TB
    - Poor Quality
    - Unknown

- C6. Other pre-immigration CXR abnormalities:
  - Volume loss
  - Infiltrate
  - Granuloma(ta)
  - Adenopathy
  - Other (specify):  

#### U.S. Domestic CXR

- C7. U.S. domestic CXR done?  
  - Yes  
  - No  
  - Not Verifiable

- C8. Date of U.S. CXR:  
  - Unknown

- C9. Interpretation of U.S. CXR:
  - Normal
  - Abnormal (must select one below):
    - Not consistent with active TB
    - Non-cavitary, consistent with TB
    - Cavitary, consistent with TB
    - Unknown

- C10. U.S. domestic CXR abnormalities:
  - Volume loss
  - Infiltrate
  - Granuloma(ta)
  - Adenopathy
  - Other (specify):  

#### U.S. Review of Pre-Immigration Treatment

- C12a. Completed treatment pre-immigration?  
  - Yes  
  - No

  - If YES,  
    - Treated for TB disease  
    - Treated for LTBI

  - C12b. Treatment start date:  
  - Start date unknown

  - C12c. Treatment end date:  
  - End date unknown

  - C12d. Treatment reported by:
    - Treatment documented on DS forms
    - Patient reported treatment completion at or before panel physician examination
    - Both-documented on DS forms & patient reported
    - Unknown

  - C12e. Standard TB treatment regimen was administered?  
  - Yes  
  - No  
  - Unable to verify

#### U.S. Domestic Treatment

- C13. Arrived on treatment?  
  - Yes  
  - No  
  - Unknown

  - If YES,  
    - TB disease  
    - LTBI

  - C13a. Start date:  
  - Start date unknown

  - C14. Pre-Immigration treatment concerns?  
  - Yes  
  - No

  - If YES,  
    - Treatment duration too short
    - Incorrect treatment regimen
    - Other, please specify:  

Workflow Exit Criteria

- If you set “Step 1 - LBOH acknowledged” to yes in the administrative question package, the event will disappear from your workflow.
Resources

• Call 617-983-6970 to speak with a TB epidemiologist

• Outreach for language support or adherence support
  – Call 617-983-6970 OR use MAVEN care plan/follow up question package

• PPD order form is attached

• TB clinic list and other materials are at https://www.mass.gov/tuberculosis
Save the date

• November 7, 2019 conference in Worcester for local board of health nurses about contact investigations

• Flyer is attached to the webinar
Halting the Spread of TB: Getting People from Exposure to Treatment Completion

November 7, 2019 | 8:30 AM – 4:00 PM
University of Massachusetts Medical School
55 Lake Avenue North
Worcester, MA 01655

QUESTIONS?
Please contact Arlene Williams at:
aronwilliams@njms.rutgers.edu or (973)-972-9101

Jointly Provided by

[Logos of Rutgers Global Tuberculosis Institute and Commonwealth of Massachusetts Department of Public Health]