Tuberculosis (TB) Exposure at Childcare in Manchester, NH

Key Points and Recommendations:

- A person with tuberculosis (TB) has been identified who was present in a Manchester, NH childcare facility during their infectious period. All children and staff who attended or worked at this facility from March 1, 2024 through August 6, 2024 are considered exposed.

- All exposed persons are being notified by NH DPHS and may present for evaluation, requiring review for signs and symptoms of active TB.

- Persons who have signs/symptoms of tuberculosis should be managed under airborne infection isolation while performing appropriate diagnostic work-up, including chest x-ray and sputum collection for acid-fast bacilli (AFB) smear, culture, and nucleic acid amplification testing
  - Young children may not be able to produce sputum and may need alternate specimens examined such as gastric aspirates.

- Asymptomatic exposed persons should be evaluated for latent TB infection (LTBI) by a baseline tuberculin skin test (TST) or interferon gamma release assay (IGRA) then, if negative, again 8-10 weeks after the person’s last exposure.

- Any asymptomatic person who has a positive TST or IGRA needs to undergo a chest x-ray, thorough history and physical examination, and evaluation for treatment of latent TB infection (if chest imaging is negative).

- All exposed children younger than 5 years of age and people who are severely immunocompromised should be managed per the attached healthcare provider letter (see attachment) because they are at high risk for developing active TB disease and disseminated infection. Management should include the following:
  - History and physical examination to evaluate for active TB disease.
  - 2-view CXR (including for asymptomatic persons).
  - TST or IGRA now, with a second test at 8-10 weeks after last exposure.
  - For those with negative baseline TST or IGRA without suspicion for active TB, “window prophylaxis” (usually with isoniazid) should be initiated immediately while awaiting results of the 8-10 week TST or IGRA test.
If TST or IGRA is negative at 8-10 weeks, then window prophylaxis can be stopped.

If TST or IGRA is positive, therapy should be continued to treat for latent TB infection.

- For questions about this situation, please contact the NH Division of Public Health Services (DPHS) at 603-271-4496 (after hours 603-271-5300).

Additional Resources
CDC Materials for Providers: https://www.cdc.gov/tb/hcp/clinical-overview/index.html

Attachments: Healthcare Provider Letter
For any questions regarding this notification, please call the NH DHHS, DPHS, Bureau of Infectious Disease Control at (603) 271-4496 during business hours (8:00 a.m. – 4:30 p.m.).

If you are calling after hours or on the weekend, please call the New Hampshire Hospital switchboard at (603) 271-5300 and request the Public Health Professional on-call.

To change your contact information in the NH Health Alert Network, please send an email to DHHS.Health.Alert@dhhs.nh.gov or visit www.nhan.org.

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From: Dr. Benjamin Chan, MD, MPH – NH State Epidemiologist
Dr. Elizabeth Talbot, MD – NH Deputy State Epidemiologist

Originating Agency: NH Department of Health and Human Services, Division of Public Health Services

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Dear Healthcare Provider,

A person with tuberculosis (TB) has been present in a Manchester, NH childcare facility during their infectious period from March 1 – August 6, 2024. All children who attended and staff who worked at this facility during this period are considered exposed and being notified by NH DPHS to seek care with their primary care provider. You have been identified as a primary care provider for a child who attends this affected facility.

We are requesting that you evaluate this child as soon as possible to rule out active disease, determine if infection has occurred, and consider window prophylaxis for those who qualify. Window prophylaxis is appropriate for all asymptomatic children who are younger than 5 years of age, and any person who is immunocompromised who do not have evidence of active TB disease and while waiting for latent TB infection test results. This window prophylaxis is important because these persons are at high risk for developing active TB disease and disseminated infection.

Please review the detailed guidance outlined below:

- **Any child with concerning symptoms** should be sent immediately for expedited imaging including 2-view chest radiograph (CXR) and a history and a physical examination to rule out active TB. *If an acute viral illness is suspected, a close follow-up examination, virtual visit, or telephone call should be scheduled to assure timely resolution of symptoms before proceeding as described below.*

- **All asymptomatic children** – Perform a 2-view CXR and history and physical examination to rule out active TB.

- **If imaging is abnormal or there are concerns for active TB**, call the NH Division of Public Health Services (DPHS) at 603-271-4496 to discuss next steps which may include: admission, gastric aspirates, empiric active TB therapy, etc.

**If evaluation is negative for active TB:**

- **Children <5 years of age and children who are immunocompromised:**
  - Perform a tuberculin skin test (TST) or interferon gamma release assay (IGRA). If TST is performed, read at 48-72 hours and document the results.
  - Window prophylaxis: Start isoniazid 10-20 mg/kg PO daily (max 300).
    - Consider also administering pyridoxine (vitamin B6) 1-2 mg/kg PO daily (max 50 mg/day) for infants who are exclusively breastfed and children with poor diets.
    - INH suspension is not recommended, because the sorbitol base may induce diarrhea.
- If the initial TST is positive (≥5mm induration at 48-72 hours) or the IGRA is positive, continue isoniazid and pyridoxine to complete a 9-month LTBI course
  - Follow up at least monthly to assess adherence and safety.
- If the initial TST or IGRA is negative, then repeat TST or IGRA testing should be performed 8-10 weeks from the child’s last exposure to this infectious source patient. If the second test is:
  - Negative: stop isoniazid and pyridoxine.
  - Positive: continue isoniazid and pyridoxine to complete a 9-month course, with follow-up at least monthly to assess adherence and safety.

- **Children 5 years of age or older who are not immunocompromised:**
  - Perform a tuberculin skin test (TST) or interferon gamma release assay (IGRA). If TST is performed, read at 48-72 hours and document the results.
  - Window prophylaxis is not necessary while awaiting test results.
  - If the initial TST is positive (≥5mm induration at 48-72 hours), or if the IGRA is positive, then treat for LTBI: https://www.cdc.gov/tb/topic/treatment/ltbi.htm.
  - If initial TST or IGRA is negative, then repeat testing at 8-10 weeks from the child’s last exposure. If the second test is:
    - Negative: no treatment is required.

The Red Book also includes detailed information about window prophylaxis and LTBI treatment in children. Please report the evaluation of the child and your management plan to the NH Division of Public Health Services (DPHS). Fax test results and notes with evaluation and management plan to 603-696-3017. If you have questions about this notice, please contact NH DPHS at 603-271-4496.

Sincerely,

Benjamin Chan, MD, MPH
NH State Epidemiologist

Elizabeth Talbot, MD
NH Deputy State Epidemiologist