



Recommendations for isolating potentially infectious tuberculosis (TB) patients differ depending on sputum smear results; level of clinical suspicion; drug sensitivity of the organism; type of setting; and the age, immune status and exposure status of household members.

These are general recommendations. Contact the North Dakota Department of Health TB Program at 701.328.2377 regarding individual patient situations (e.g., suspicion of drug resistance, lack of sputum production even on induction) that may require more or less restrictive criteria.

Patients With Initial Sputum¹ Smear-Positive for Acid Fast Bacilli (AFB)

1. Home Isolation

For patients with at least one positive AFB smear from sputum¹ **and** high clinical suspicion² of TB **and** a presumed pansensitive organism, regardless of chest x-ray findings, **home isolation** may be considered when **all** of the following criteria are met:

- a. Household with previously exposed **children younger than five years**:
 - (1) Children must have been evaluated for TB and be receiving prophylaxis during the window period by directly observed therapy (DoT), **and**
 - (2) The patient must be receiving and tolerating the appropriate four-drug TB treatment by DoT.
 - **Note:** The patient, if the children's primary caregiver, should wear a surgical mask for at least the initial two weeks of TB treatment and minimize the time spent around the children.
 - **Note:** The patient, if a breastfeeding mother, should wear a surgical mask while breastfeeding for at least the initial two weeks of TB treatment.
 - **Note:** The patient, if not the children's primary caregiver, should be separated from the children if possible.
- b. Household with previously exposed **immunocompromised** individuals ages five years and older:
 - (1) Immunocompromised individuals must be evaluated for TB **and** receiving window prophylaxis, **and**
 - (2) Patient must be receiving **and** tolerating the appropriate four-drug TB treatment by DoT.
- c. Household with previously exposed immunocompetent individuals ages five years and older:
 - (1) Patient must be receiving **and** tolerating the appropriate four-drug TB treatment by DoT.

Home isolation may be discontinued when the patient is deemed **noninfectious and** meets **all** the following criteria:

- ▶ Patient must be receiving **and** tolerating appropriate four-drug TB treatment for **14 days or more** by DoT, **and**
 - Patient must show clinical improvement or be asymptomatic, **and**
 - Patient must demonstrate smear conversion (i.e., three consecutive AFB smear-negative results from sputum specimens collected more than eight hours apart).

2. Congregate settings (e.g., hospital, jail, nursing home, rehabilitation center, shelter, halfway house, elder day care, dialysis unit) require a patient to be **noninfectious** and meet all of the following criteria:

- a. Patient must be receiving **and** tolerating appropriate four-drug TB treatment for **14 days or more** by DoT, **and**
- b. Patient must show clinical improvement or be asymptomatic, **and**
- c. Patient must demonstrate smear conversion (i.e., three consecutive AFB smear-negative results from sputum specimens collected more than eight hours apart).

¹In the absence of sputum specimen results, other respiratory specimens (e.g., bronchoalveolar lavage) should be interpreted in the same way as in the above recommendations for sputum. However, if AFB smear results from both sputum and other respiratory specimens are available, the sputum smear results override the results of other respiratory specimens.

²High clinical suspicion includes patients for whom antituberculosis treatment has been initiated.

Patients With Initial Sputum¹ Smear-Negative for Acid Fast Bacilli (AFB)

Patients with three consecutive negative AFB smears from sputum¹ and high clinical suspicion² of TB **and** a presumed pansensitive organism, regardless of chest x-ray finding, may return to their household/living situation when **all** of the following criteria are met:

1. Home Isolation

- a. Patient must be receiving and tolerating the appropriate four-drug TB treatment by DoT, **and**
- b. Previously exposed children younger than five are being evaluated for TB **and** will start window prophylaxis by DoT, **and**
- c. Previously exposed immunocompromised individuals are being evaluated for TB **and** will start window prophylaxis by DoT.

Note: Home isolation is recommended for the initial **three to five days** of appropriate four-drug TB treatment.

2. Congregate Setting (e.g., hospital, jail, nursing home, rehabilitation center, shelter, halfway house, elder day care, dialysis unit)

- a. Patient must be receiving **and** tolerating appropriate four-drug TB treatment for **three to five days** by DoT, **and**
- b. Patient must show clinical improvement or be asymptomatic.

This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health.

References

American Academy of Pediatrics. [Tuberculosis]. In: Pickering LK, Baker CJ, Kimberlin DW, Long SS, eds. Red Book: 2009 Report of the Committee on Infectious Diseases. 28th eds. Elk Grove Village, IL: American Academy of Pediatrics; 2009 [pages 696-698].

Centers for Disease Control and Prevention. Controlling Tuberculosis in the United States: Recommendations from the American Thoracic Society, CDC and the Infectious Diseases Society of America. MMWR 2005; 54 (No. RR-12): [page 9].

Centers for Disease Control and Prevention. Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings, 2005. MMWR 2005;54 (No.RR-17) [pages 16, 43].

Centers for Disease Control and Prevention. Guidelines for the Investigation of Contacts of Persons with Infectious Tuberculosis: Recommendations from the National Tuberculosis Controllers Association and CDC. MMWR 2005;54 (No.RR-15).

Francis J. Curry National Tuberculosis Center. Tuberculosis Program Manual Template. Accessed October 29, 2010 [www.nationaltbcenter.edu/research/tb_manual_template.cfm].

Heartland National Tuberculosis Center. Guidelines for Home and Hospital Isolation of Infectious Tuberculosis Patients. Accessed October 29, 2010 [www.heartlandntbc.org/newsletters/tbeat_vol_4_issue_2.pdf].

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