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DEPT. OF HEALTH AND HUMAN SERVICES

Nebraska Department of Health and Human Services
Tuberculosis Program

TABLE OF CONTENTS

PART 1: INTRODUCTION AND HELPFUL INFORMATION

SECTION 1: Introduction, External Partners, and Purpose

This document was created to assist public health providers and community partners in TB elimination. This manual will provide helpful information regarding:

- TB testing,
- controlling,
- monitoring,
- treating, and
- reporting tuberculosis (TB) in the state of Nebraska.

These guidelines are extrapolated from the standards of care and practice set forth by the Centers for Disease Control and Prevention (CDC), the American Thoracic Society (ATS), and the Infectious Disease Society of America (IDSA).

The Nebraska DHHS Tuberculosis (TB) Program set these guidelines to do the following:

- Provide epidemiological, technical, medical, and programmatic consultation services regarding tuberculosis elimination to all local health departments (LHDs) and health care providers, including all public and private physicians, nurses, and health care facilities.

- Provide support for patients who qualify for assistance with TB medication and TB-related clinical services, under programmatic guidelines, when funding is available.

- Partner with the TB section of the Nebraska Public Health Laboratory (NPHL) to ensure laboratory services are available in the state and meet quality standards.

- Maintain compliance and ensure reporting regulations set by Nebraska DHHS and other regulatory bodies are met.

- Enforce Directed Health Measures (DHMs) when necessary.

- Compile and distribute epidemiological data on the incidence and location of TB disease in Nebraska.

- Conduct interstate transfer of information regarding TB patients and their contacts.

- Conduct a yearly program evaluation, which is shared with partners at the CDC. Evaluations are used to determine strengths and areas of improvement for both state and local program efforts and address them as appropriate.

SECTION 2: Definitions

The following terms are defined for clarification and universal understanding regarding this document and its relation to TB testing, control, monitoring, treatment, and reporting of tuberculosis disease.

3HP – Medicine regimen, consisting of rifapentine and isoniazid, given once weekly for 12 weeks for the purposes of treating latent TB infection.

Airborne M. tuberculosis transmission—principal means of spreading *M. tuberculosis*, through which airborne droplet nuclei are suspended in airspace and subsequently inhaled by a host.

Airborne Precautions – Isolation is a category of patients known or suspected to be infected with pathogens transmitted by the airborne route and appropriate isolation guidelines should be utilized.

Acid-Fast Bacilli – A type of bacteria that causes tuberculosis and other infections.

BCG – Bacille Calmette-Guérin, a vaccine for tuberculosis named after two French scientists. BCG is not widely used in the United States but is often given to infants and small children in other countries where TB is common.

Cavity – A hole in the lung where TB bacteria have eaten away the surrounding tissue. If a cavity shows up on a chest x-ray, the patient is more likely to cough up bacteria and therefore be infectious.

Chest X-Ray – A chest X-ray is an imaging test that uses X-rays to look at the structures and organs in your chest. A healthcare provider can identify if TB bacteria have caused cavities or otherwise damaged the lungs.

Class B TB Arrival – A person from overseas who has been evaluated for TB by a CDC designated panel physician and cleared for travel and arrival into the United States through refugee programs. This person may be referred to as Class B0, B1, B2, or B3. Please refer to CDC's Guidance for Screening for TB Infection and Disease during the Domestic Medical examination for Newly Arrived Refugees (https://www.cdc.gov/immigrantrefugeehealth/pdf/TB-domestic-guidelines-h.pdf).

Cohort Review – Review conducted by local health department staff, in conjunction with the health care providers and a TB consultant, to evaluate the treatment outcomes of a group of patients.

Contact – A person who has spent time with a person who has infectious TB.

Culture –A test to see whether there are TB bacteria in sputum or other body fluids. This is conducted by placing a sample on culture media to see if bacteria grow in a laboratory setting. Because TB is a slow-growing organism, this test can take 2 to 4 weeks to complete. A positive result confirms the presence of TB.

Department – Refers to the Nebraska Department of Health and Human Services (DHHS).

Directed Health Measure (DHM) – The legal act of committing a person with infectious TB who is unwilling to comply with public health treatment or isolation guidance.

Directly Observed Therapy (DOT) – A way of helping patients take their TB medicine. DOT patients meet with a health care worker every day or several times a week at a convenient location such as the TB clinic or the patient's home or workplace. The health care worker observes the patient take their medicine to ensure adherence to TB treatment.

Drugs or **Medications** – Refers only to drugs/medications specifically authorized by DHHS as appropriate for the care and treatment of persons afflicted with tuberculosis.

Electronic Disease Notification System (EDN) – CDC database which houses Class B TB medical data and refugee arrival information.

Electronic Directly Observed Therapy - Electronic DOT (eDOT) that uses a video-enabled device (e.g, smart phone, tablet, computer) to facilitate treatment observation. May be referred as vDOT or video directly observed therapy.

Extensively Drug-Resistant tuberculosis (XDR-TB)-Tuberculosis caused by a strain of *M. tuberculosis* complex that is resistant to rifampicin (and may be resistant to isoniazid) and that is also resistant to at least one fluoroquinolone and at least one other "Group A" drug (bedaquilline or linezolid).

Extrapulmonary Tuberculosis – TB disease in any part of the body other than the lungs (for example, the kidneys or lymph nodes).

Genotype – Distinct genetic pattern of an organism.

Genotype Cluster – Indicates two or more cases have the same genotype.

HIV Infection – Infection with the human immunodeficiency virus, which causes AIDS (acquired immunodeficiency syndrome). A person with both TB infection and HIV infection is at very high risk for TB disease. See clarification between TB infection and disease below.

Infectious or **Infectiousness** – Likely to spread a disease.

INH or **Isoniazid** – One of the five drugs used to treat TB disease, as well as being used to prevent TB disease in people who have TB infection. See clarification between TB infection and disease below.

Interferon Gamma Release Assay (IGRA) – A blood test that detects TB. IGRAs do not distinguish between active TB disease and latent TB infection. See clarification between TB infection and disease below.

Isolation – The separation of a person with infectious TB from other people, in a place and under conditions that will prevent transmission of the infection.

Local Health Department (LHD) – Agency which performs contact investigations, case management activities and provides DOT. LHDs work closely with the treating provider of a patient. LHDs also oversee other public health activities to promote health and prevent disease.

Miliary Tuberculosis – TB disease that has spread to the whole body via the bloodstream.

Multi-Drug Resistant Tuberculosis (MDR TB) – TB disease caused by bacteria that are resistant to more than one of the main drugs often used to treat TB.

***Mycobacterium tuberculosis* (*M. tuberculosis*) –** Species of bacteria that causes both TB infection and TB disease.

Negative – In reference to a test result. Patients with a negative TB test probably do not have TB infection.

Positive –In reference to a test result. Patients with a positive TB test probably have TB infection.

Presumed Tuberculosis – Refers to a person possibly having TB based on signs or symptoms, but still needing lab work or clinician confirmation to decide.

Preventive Therapy – Treatment for people with TB infection that prevents them from developing TB disease. See clarification between TB infection and disease below.

Pulmonary Tuberculosis – TB disease that occurs in the lungs, usually producing a cough that lasts longer than two weeks.

Quarantine – The involuntary, medically, or statutorily imposed isolation of a person to prevent the spread of TB disease.

Resistant Bacteria – Bacteria that can no longer be killed by a certain drug.

Third Party Payer – Any individual, firm, partnership, corporation, company, association, or any other entity responsible for, or otherwise under an obligation to provide, the payment of all or part of the cost of the care, treatment, maintenance, or transportation of a patient with TB. This does not include DHHS, the patient themselves, or any health care provider, hospital, or other facility providing services

to that person. Third-party payers may include, but are not limited to, private insurance companies or public entities like Medicare or Medicaid.

Tuberculosis Consultant – A physician who is both licensed and under contract with Nebraska DHHS, acting under the supervision of DHHS, and is versed in current TB management and treatment practices. TB consultants may advise DHHS on each case of communicable or infectious TB and the respective appropriate methods of treatment.

Tuberculosis Disease – An illness in which TB bacteria are multiplying and attacking different parts of the body. The symptoms of TB disease include weakness, weight loss, fever, no appetite, chills, and sweating at night. Other symptoms of TB disease depend on where in the body the bacteria are growing. For example, if TB disease is in the lungs (pulmonary TB), symptoms may include a bad cough, pain in the chest, and coughing up blood. TB disease may also be referred to as active, communicable, or infectious TB/TB disease.

Tuberculosis Infection – A condition in which TB bacteria are alive, but inactive in the body. People with TB infection will usually have a positive test, but have no symptoms, do not feel sick, and cannot spread TB to others. May also be referred to as latent TB infection or LTBI. LTBI may develop TB disease later in life without receiving preventive therapy.

Tuberculosis Program Specialist RN – Title of the individual overseeing the daily operations of the Nebraska DHHS TB Program.

Tuberculin skin test – A test used to detect TB by injecting a liquid called tuberculin under the skin on the lower part of a patient's arm. A positive reaction to the test indicates TB infection.

Smear – A test to identify TB bacteria in the patient's sputum. This is completed in the laboratory by smearing phlegm on a glass slide, staining the slide with specific dye, and looking for any TB bacteria on the slide. This test usually takes 24 hours to complete.

Sputum – Mucous and other matter coughed up from deep inside the lungs. Sputum is examined for TB bacteria using a smear test and can also be used to do a culture.

Window prophylaxis – Treatment for LTBI in children under five years of age or persons with compromised immune systems after initial tests are negative. Must be done when fewer than 8-10 weeks have passed since their last exposure to the infectious TB contact.

References:

Centers for Disease Control and Prevention. Transmission-Based Precautions. https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html#anchor_1564058235 (Accessed May 2024).

TB Dictionary. Global Tuberculosis Dictionary. https://tbdictionary.org/ (Accessed April, 2024)

PART 2: LOCAL HEALTH DEPARTMENT RESPONSIBILITIES

SECTION 1: Case Management for Presumed and Active TB Patients

A course or principle of action adopted or proposed to obtain appropriate treatment for a patient with TB and intended to minimize the spread of TB within the community.

Purpose: Is the reason for which something is done or created to reduce the impact of TB on patients and the public.

In Nebraska, local health departments (LHD) are responsible for overseeing appropriate diagnostic and treatment services, which includes monitoring the results of therapy within their respective jurisdictions. In addition, LHDs, with the support of jurisdictional medical providers and the DHHS TB Program, are responsible for TB case management.

Below are criteria that are needed to diagnose a TB case.

- Provider suspicion of TB due to signs, symptoms, clinical findings, risk factors, and/or laboratory evidence.
- Abnormal chest x-ray (CXR) with clinical findings consistent with TB. CXR must have been performed within the last 6 months.
- Positive test (either TST or IGRA). All patients with positive tests should be evaluated for both active TB disease and latent TB infection. If active disease is ruled out, please refer to section below on treatment of LTBI. To make determination of active TB disease, provider must:
    - evaluate the patient for signs and symptoms of TB disease.
    - collect three sputum specimens, at least one being an early morning specimen. All three must be collected at least 8 hours apart. If storage is necessary before transportation, must be stored in a refrigerator with a label containing date/time of collection, patient name, and patient date of birth.
    - may consider induced sputum with provider order.
- Positive acid-fast bacillus (AFB) (i.e., positive smear test with other TB findings) with other additional findings of TB listed below, clinical symptoms of TB, radiology reports, or provider judgement.
    - Positive culture
    - Positive Nucleic Acid Amplification Test (NAAT) or Polymerase Chain Reaction (PCR)
    - Providers may diagnose a clinical TB case without waiting for laboratory confirmation. Clinical judgement should be utilized, and any potential cases reported to the LHD immediately.

CHAPTER 1 - Reporting and Control of Communicable Disease that health care providers must make reports of communicable disease, such as TB patients (both presumed and active), to LHDs within 7 days. Please see reference section for further administrative code information.

Directly proceeding notification, the LHD must do the following:

- Initiate and complete a patient interview within 3 days of notification of presumed TB case. It is strongly encouraged to schedule at least one home visit during the interview process of the contact investigation. Additional or follow up interviews should occur throughout the investigation to gather as much information as possible.
    - LHD staff should be fit tested and wear N95 respirator while around the patient.
- Immediately initiate airborne precautions in cases of pulmonary TB (or cases of extrapulmonary TB where aerosolization may occur). Educate patient on how to take precautions and why they are necessary.
    - Ensure patient is in airborne infection isolation room (AIIR) if in healthcare setting or congregate setting (i.e. a Corrections facility).
    - Staff use a N95 or higher-level respirator.
    - If the patient is in a home setting, they will need to stay in a separate room away from others. The patient should not leave the house any more than strictly necessary and avoid members of the community.
    - If patient must attend medical appointment, please notify clinic ahead of time, have patient wear surgical mask, and educate on respiratory etiquette (cover your cough)
    - Please refer to CDC publication MMWR "Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health Care Settings, 2005" for further guidance.
- Assess if the home has children under 5 years of age or patients with immunosuppressing conditions. Make referrals for timely evaluations and initiate window therapy if evaluation is negative for TB disease.
- Implement plan to obtain three (3) more sputum samples around the two-week mark of receiving TB treatment. Three *negative* sputum samples will be needed for a patient to exit isolation and stop observing airborne precautions.
- If draining TB wound presents, discontinue airborne precautions when patent is improving clinically and drainage has stopped, or if there are 3 negative cultures of continued drainage. A TB wound be laboratory confirmed or clinically diagnosed. TB wounds may be found on various parts of the body (Example: draining lymph node wound with positive TB culture).
- Facilitate and arrange an appropriate treatment regimen. See the current CDC/ATS/ IDSA TB treatment guidelines at https://www.cdc.gov/tb/topic/treatment/tbdisease.htm and refer to next section.
    - For a Nebraska patient who utilizes private pharmacies and live in Omaha or the surrounding areas, please use the Nebraska Medicine outpatient pharmacy, phone

number (402) 559-5215. If a pediatric TB case, please call outpatient pharmacy at Children's Hospital at (402) 955-6779. For greater Nebraska adult patients, please refer to the TB Program for pharmacy options. Patients may choose their pharmacy from the list of existing pharmacies program partners across Nebraska.

- Patients who are insured or underinsured may be eligible for expanded financial assistance upon meeting certain criteria.
- The LHD should work with the DHHS TB Program Specialist RN to organize payment for physician visits, chest x-ray, and testing for patients who would otherwise be unable to access or afford it. See payment section for more details.
- All medications used for treatment are subject to approval by the DHHS TB Program Specialist RN. See payment section for more details.
- Discuss Directly Observed Therapy (DOT) with both the provider and the patient. A combination of DOT and case management lead to the best treatment results. If the provider is unwilling or unable to support DOT, LHD staff will conduct home visits at least once a month to monitor patients for compliance and side effects from TB medication.

- Initiate a contact investigation. All pulmonary TB cases require a contact investigation. Extrapulmonary cases may or may not need a contact investigation. Refer to CDC Module #8 "Contact Investigation for Tuberculosis" at https://www.cdc.gov/tb/education/ssmodules/default.htm for further details.

SECTION 2: Treatment for TB Disease

All individuals taking treatment for either presumed or active TB disease should be on a standard regimen as indicated by CDC, ATS, and IDSA recommendations

Purpose: To ensure safe and appropriate treatment for TB disease.

When TB bacteria become active and are multiplying in the body, it is called TB disease. TB disease causes a person to become ill, and become highly contagious, increasing the danger of spreading disease to persons with whom they spend significant time. It is imperative for people with TB disease to receive appropriate timely treatment and complete their medical regime as prescribed. If patients with TB do not take their medications exactly as prescribed, they may become ill again or develop drug-resistance, which makes the disease even more difficult to treat.

Most patients with TB disease can be cured within 6 to 9 months by receiving prescribed core "first line" TB medication such as:

- Isoniazid (INH)
- Rifampin (RIF)
- Ethambutol (EMB)

- Pyrazinamide (PZA)

If questions or concerns persists, please access the recommended dosage and treatment guidelines at https://www.cdc.gov/tb/topic/treatment/tbdisease.htm or consult local medical professionals for further consultation.

SECTION 2.A: Drug Resistant

Drug resistant (DR) TB is caused by the misuse or mismanagement of TB drugs. It can happen more often in patients who are non-compliant with TB regimes as prescribed. DR TB is also found in individuals who come from areas in the world where TB is common, or they have spent time with someone else who had drug resistant TB.

The process to identify DR TB is as follows:

- Initial culture is identified as positive for *M. tuberculosis* bacteria.
- A drug susceptibility test follows where bacteria are incubated in the presence of a panel of anti-TB drugs.
    - If the bacteria multiply and grow, then they may be resistant to those drugs.
    - The test may take two (2) to three (3) weeks to complete after the initial identification of *M. tuberculosis*.

A person can acquire a drug-resistant strain of TB in two (2) ways:

- From another person (primary resistance).
- Inadequate treatment (secondary resistance).

Please note that non-compliance with drug treatment plays a major role in the development of drug resistant TB. Adequate case management and monitoring is essential.

Drug resistance makes the treatment process both complicated and expensive. If a health care provider encounters drug resistant TB, professional guidance and expert medical consultation should be sought through the Center of Excellence, which for Nebraska is the Mayo Center for Tuberculosis.

Case management and monitoring is specific to bedaquiline, pretonamid, and linezolid (BPaL) and BPaL plus moxifloxacin for treatment of drug resistant TB is specific. Health care providers should be aware of adverse events, related to all MDR TB Drugs Providers should also monitor cardiovascular toxicity including QT prolongation, monitoring and management. The Nebraska TB Consultant will serve as an expert resource when needed for case management or contact investigation management by the RN Program Specialist. Providers are encouraged to utilize the Drug-Resistant Tuberculosis: A Survival Guide for Clinicians, 3rd edition/2022 Updates by the Curry International TB Center. This resource

includes details of epidemiology & background, diagnosis, laboratory, treatment, medication fact sheets, pediatrics, co-morbidities & special situations, monitoring & case management, adverse reactions, contacts, and expert resources.

MDR window therapy and LTBI patients will have DOT based upon programmatic resources. If resources are limited, priority will be given to young children, immunocompromised individuals, and those individuals identified as high priority by the RN Program Specialist.

Multidrug-resistant TB (MDR TB) is TB that does not respond or is resistant to isoniazid and rifampicin, the two (2) most powerful anti-TB drugs.

There are two (2) types of MDR TB:

- Pre-extensively drug resistant (pre-XDR) TB is a type of MDR TB caused by TB bacteria that are resistant to isoniazid and rifampin, as well as fluroquinolone or a second-line injectable (amikacin, capreomycin, or kanamycin).
- Extensively drug resistant (XDR) TB is a rare type of MDR TB caused by TB bacteria that are resistant to isoniazid, rifampin, fluroquinolone, *and* a second line injectable (amikacin, capreomycin, or kanamycin) *or* TB bacteria that are resistant to isoniazid, rifampin, fluroquinolone, *and* bedaquiline or linezolid.

When MDR TB is identified at a LHD, local health care providers should reach out to the DHHS TB Program as soon as possible. All providers involved will collectively consult MDR TB experts and develop a care plan for the patient and their close contacts. The DHHS Tuberculosis Program Specialist, RN will update DHHS leadership in an expedited fashion and will follow each MDR case through to its conclusion.

Email: https://centerfortuberculosis.mayo.edu/

Phone: 507-284-0275

Medical Consultation: MCCT.idcrowd.org

References:

Centers for Disease Control and Prevention. Drug-Resistant TB. https://www.cdc.gov/tb/topic/drtb/default.htm (Accessed March 2024).

Centers for Disease Control and Prevention. Treatment for TB Disease. https://www.cdc.gov/tb/topic/treatment/tbdisease.htm (Accessed March 2024).

Curry International Tuberculosis Center. Drug-Resistant Tuberculosis: A Survival Guide for Clinicians, 3rd edition/2022 updates. https://www.currytbcenter.ucsf.edu/products/view/drug-resistant-tuberculosis-survival-guide-clinicians-3rd-edition (Accessed April 2024).

Nebraska Department of Health and Human Services: Nebraska Reportable Diseases. Title 173 Regulations. https://rules.nebraska.gov/rules?agencyId=37&titleId=102 (Accessed March 2024).

Nebraska Public Health Lab resource on Title 173 Reportable Diseases https://dhhs.ne.gov/epi%20docs/NPHL%20Reportable%20Disease%20Title%20173%20Chart%20%20Version%202023%2002%2017.pdf (Accessed March 2024).

SECTION 2.B: Directly Observed Therapy (DOT)

Directly Observed Therapy (DOT) is strongly encouraged for all patients with both presumed and active TB disease.

Purpose: To ensure patients are ingesting TB medications according to the prescriber's instructions to prevent missed doses and/or drug resistance.

DOT should be part of the initial management strategy and providers should know the following:

- Observe the patient ingest each dose of TB medication to maximize compliance.
- The management plan should be individualized to incorporate measures that facilitate:
    - adherence to the drug regimen that includes social service support, treatment incentives, housing assistance, referral for treatment of substance abuse if applicable, and coordination of TB services with those providers.
- DOT is a standard method of treating active TB.
- DOT allows for immediate detection of non-compliance so that actions can be taken to avoid treatment failure. Careful attention must be paid to ensure ingestion of the medication occurs.
- Even with DOT, additional strategies and efforts may be necessary for treatment success.
- DOT needs a medical order from the provider or state epidemiologist.

Adherence may be more likely if the case manager(s) follow these steps:

- Learn as much as possible about a patient's health history, beliefs, and attitudes towards TB.
- Work with an interpreter or a person of the same cultural background as the patient if possible.
- Look for early warning signs of future adherence problems (e.g., a patient feels medicine is no longer needed because they are feeling well, difficulty in accessing health care, etc.).
- Designate a person to do DOT who does not have a strong emotional tie with the patient. Suitable designees might include school nurse or other staff, employee health staff, public health visiting nurse, work supervisor, clergy, or another responsible person.
- Provide effective education to patients and key individuals in the patient's social environment.

- Provide patient with needed health or social services or make referrals to other health or social services agencies.
- Use a team of personnel whose members work together to assist each patient in completing treatment.
- Mutually agree on a time and location for DOT (be creative and flexible).
- Be aware of patients who may need additional support for medication ingestion (e.g., hiding pills in mouth, vomiting after pills are swallowed, etc.).
- Encourage a social support system that enhances the patient's adherence to treatment.
    - "We Are TB" is a national support group for patients with TB. It is an online option for patients who may feel isolated: https://www.wearetb.com.
- Use incentives and tools that enhance compliance.
- Contact DHHS TB Program for further information and resources.

Qualifications for DOT

- Presumed or Active Disease TB patient
- If local health department is resource limited, may consider doing once monthly for extrapulmonary TB.
- If health care provider refuses DOT, LHD should inform provider LHD will do once monthly check in visits with TB patients for surveillance purposes.
- Consideration for MDR LTBI based upon programmatic resources and management decision.
- Consideration for LTBI based upon programmatic resources and management decision. Currently, DOT is not provided for LTBI patients.

Delivering DOT

- A nurse or supervised outreach worker from the patient's local public health department normally provides DOT.
- In some situations, it works best for clinics, home care agencies, correctional facilities, treatment centers, schools, employers, and other facilities to provide DOT, under the guidance of the local health department.
- Family members should not be used for DOT. (DOT providers must remain objective.)
- For complex regimens including IV/IM medications or twice daily dosing, home care agencies may provide DOT or share responsibilities with the local health department.
- If resources for providing DOT are limited, priority should be given to patients most at risk.
- LHDs may contract with other agencies to provide DOT.
- It is the responsibility of the LHD to provide and document the DOT and to report adverse outcomes to the treating provider timely.

DOT Administration

- DOT includes:

    - Delivering the prescribed medication,
    - Checking for side effects,
    - Watching the patient swallow the medication,
    - Documenting the visit, and
    - Answering questions.
- DOT should be initiated when TB treatment starts.
    - Do not allow the patient to try self-administering medications and missing doses before providing DOT. If the patient views DOT as a punitive measure, there is less chance of successfully completing therapy.
- The prescribing physician should show support for DOT by explaining to the patient that DOT is widely used and very effective.
- Patients taking daily therapy can self-administer their weekend and holiday doses. Please mark as such on the DOT log sheet.

Electronic Directly Observed Therapy (eDOT)

- eDOT is a type of electronic DOT (eDOT) that uses a video-enabled device (e.g, smart phone, tablet, computer) to facilitate treatment observation.
- eDOT is an acceptable option for many TB patients as an equivalent to in person DOT.
- eDOT is not advised for patients who are medically fragile, need injectable medications, non-adherent, or patients who prefer in-person DOT.
- eDOT is not advised if patient or caregiver not comfortable or proficient in using the eDOT platform.

Preparation of Patient using eDOT

- Knowledge of prescribed medication regimen and potential side effects
- Awareness of how to respond to and report side effects
- Capacity to take (or administer) medications
- Regular access to a video-enabled phone, tablet or computer
- Regular access to the internet or Wi-Fi
- Plans to change their phone or internet service provider during eDOT
- Device and current data plan that can accommodate the TB program's selected eDOT
- concerns about paying monthly phone or internet costs related to eDOT

Addressing Potential Difficulties

- No video platform exists for the Nebraska DHHS TB Program
- Local health departments will use their own secure platform or with agreement from the patient may use an unsecured modality with written patient consent
- Patient education and practice sessions can be helpful.
- Need to witness pills and ensure patient is swallowing pills (spitting pills out, hiding medicine in clothing, or vomit pills)

- Be aware of sessions ending right after ingestion, out of view, partially visible on screen, or covering mouth while ingesting medication. Solutions may include watching continuously ingesting pills and asking the patient to show inside their mouth while moving tongue side-to-side.

Reporting Side Effects

- Discussion should occur about medication effects and how to report immediately including how to contact a health care worker without delay.
- During live video sessions, potential side effects should be inquired about
- Recorded eDOT sessions should start off with the patient reporting any concerns of symptoms to their DOT worker. If not acknowledged, TB program staff should contact the patient and ask about any problems.
- If serious side effects are reported, drug should not be given, and the provider should be notified timely.

eDOT Guidance

Inclusion Criteria

- Stable on treatment for at least two weeks and noninfectious
- Adherence to treatment demonstrated
- English speaking or ability to effectively communicate
- Drug-susceptible disease
- No current alcohol or drug use
- Managing physician accepts the eDOT approach
- Able to accurately identify each medication

Exclusion Criteria

- Adherence issues
- Language barriers
- Multidrug-resistance
- Minors without an accompanying adult
- Patient experiences adverse reactions
- At risk patients for hepatic complications while receiving TB medications
- Patients with disabilities (hearing or vision, or physically challenged)

*Please reach out to TB Program Nurse Specialist to discuss consideration of eDOT.

LHD staff should consider how to support the patient with case management and any additional individual needs that might affect compliance.

Resources may include:

- food banks,
- community action agencies,

- landlords,
- United Way,
- local churches,
- homeless shelters, or
- refugee resettlement agencies

SECTION 2.C: Treatment Guidelines for Latent Tuberculosis Infection (LTBI)

Contacts to Cases

- Contacts should be evaluated immediately for both TB disease and LTBI.
- If TST or IGRA is positive, LTBI treatment guidelines should be followed once active TB disease has been ruled out.
- If TST or IGRA is negative, the contact should be retested in 8-10 weeks to allow time for the immune response to TB infection to be detectable.
- Window treatment:
  - If a contact is a child less than 5 years of age, or an immunocompromised person of any age, they should have a TST or IGRA, a medical evaluation, and an anterior/posterior chest x-ray (CXR).
  - The CXR for children should also include a lateral view. If all tests are negative, then treatment with daily preventative medicine should be initiated immediately until the follow-up TST or IGRA is done in 8-10 weeks.
  - If the child is less than 6 months of age, the follow-up TST or IGRA should be done after the child is over 6 months of age. If the follow-up TST or IGRA is negative, no further treatment is needed for LTBI. If the follow-up TST are positive, then treatment should be continued as LTBI, until LTBI therapy is completed per appropriate regimen.
- Please see page 23 in the CDC publication Latent Tuberculosis Infection: A Guide for Primary Health Care Providers https://www.cdc.gov/tb/publications/ltbi/pdf/LTBIbooklet508.pdf for more specific treatment guidelines.
- Please contact the DHHS TB Program if additional guidance is needed.

Post-Treatment Follow-Up

- Patients who complete LTBI therapy should receive a copy of their treatment record if needed to prove treatment was completed.
- DHHS does have a template treatment completion card. Please reach out to the DHHS TB Program Specialist RN if a copy is needed.

References:

"DOT Essentials: A Training Curriculum for TB Control Programs", Francis J. Curry National Tuberculosis Center, 2003, Accessed March, 2024.

Implementing an Electronic Directly Observed Therapy (eDOT) Program: A Toolkit for Tuberculosis (TB) Programs. CDC, Retrieved form Implementing an Electronic Directly Observed Therapy (eDOT) Program: A Toolkit for Tuberculosis (TB) Programs (cdc.gov) Accessed March ,2024.

Management: Directly Observed Therapy", New York City Department of Health, 2001.
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www.cdc.gov/nchstp/tb/webcourses/corecurr/index.htm Accessed March, 2024.

Supplemental Information for Video Directly Observed Therapy (vDOT) Recommendations. CDC, Retrieved from https://www.cdc.gov/tb/topic/treatment/vDOT.htm Accessed March, 2024.

Treatment of Tuberculosis, American Thoracic Society, CDC and Infectious Diseases Society of America, Am J Respir Crit Care Med, Vol 167, 2003 (on line at: www.cdc.gov/mmwr/preview/mmwrhtml/rr5211a1.htm) Accesssed March, 2024.

SECTION 3: Contact Investigations

Contact investigation should be conducted on all patients with infectious TB.

Purpose: To identify persons who have TB disease for treatment and to identify the source and environmental factors that may contribute to the transmission of TB.

Contacts are persons exposed to someone with infectious TB disease and generally include but are not limited to:

- family members,
- roommates or housemates,
- close friends,
- coworkers, and
- classmates.

LHD staff determine contacts by interviewing the person with TB. Factors to consider when performing a contact investigation include:

- Duration,
- proximity, and
- intensity and length of exposure

A contact investigation should be done whenever a patient is found to have pulmonary TB and in extrapulmonary cases if aerosolization has taken place. Symptoms of pulmonary TB that would necessitate a contact investigation include but are not limited to:

- Cough
- Cavitation on chest radiograph
- Positive acid-fast bacillus (AFB) sputum smear result
- Respiratory tract disease with involvement of the larynx (substantially infectious)
- Respiratory tract disease with involvement of the lungs or pleura
- Failure to cover the mouth and nose when coughing
- Incorrect, lack of, or short duration of TB treatment
- Undergoing cough-inducing or aerosol procedures (bronchoscopy, sputum induction, aerosolized medications, etc.)

Environmental factors that increase the risk of transmission of *M. tuberculosis* include:

- Exposure to TB in small, enclosed spaces
- Inadequate ventilation
- Recirculation of air containing infectious droplet nuclei
- Inadequate cleaning and disinfection of medical equipment
- Improper procedures for handling specimens

Guidance should be sought from DHHS or the Center of Excellence regarding contact investigations due to the varying nature of cases, exposures, and places of transmission.

Contact Investigation Procedure

Medical record review

- Site(s) of TB disease
- TB symptoms and estimated onset date
- Current TB treatment regimen
- Chest x-rays or other diagnostic imaging dates and results
- TST or IGRA test dates and results
- Nucleic acid amplification (NAA) test dates and results
- Genotype results (if available)
- HIV test dates and results
- Details about prior diagnosis with LTBI or TB disease and treatment
- Medical risk factors that could increase susceptibility to infection with *M. tuberculosis* or development of TB disease

Demographic and social information

- Name and aliases

- Date of birth
- Gender
- Addresses and telephone numbers
- Preferred language
- Next of kin, emergency contacts, and names of parents/guardians if the patient is a minor
- Details about TB exposure
- History of substance use, mental illness, or other issues that could affect the interview or contact investigation
- History of incarceration or homelessness
- Social or behavioral risk factors
- Contact names, focusing on children or persons with weakened immune systems
- Recent travel or immigration

Determine an initial estimate for the infectious period

- Estimating the start of the infectious period for sputum smear positive pulmonary cases.
  - The minimum start date to the infectious period is usually 3 months before the onset of respiratory symptoms, or 3 months before the first finding consistent with TB disease, whichever is earlier.
- Estimating the start of the infectious period for sputum smear negative pulmonary cases.
  - For TB cases with symptoms but negative sputum smear results, the infectious period would be 3 months before onset of symptoms, or 3 months before the first finding consistent with TB disease, whichever is earlier.
- For TB cases with *negative* sputum smear results, *no* symptoms, and *no* pulmonary cavities, the start of the infectious period is 1 month/4 weeks before TB disease was first suspected by a health care provider. This may be an incidental finding.
- Estimating the end of the infectious period.
  - The end of the infectious period is determined as 3 negative sputum smear results. The end of the infectious period must be identified before the patient returns to congregate settings or where other susceptible persons may be exposed.

Patient interview

The patient interview is one of the most critical parts of the contact investigation. If the interviewer does not communicate well enough with the patient to get accurate information about symptoms, places where the patient spent time, and names of contacts, then people who need evaluation and treatment may be missed. The interviewer must be aware that the patient may first learn of their TB diagnosis during the interview, or still be very ill and unable or unwilling to participate fully. The initial interview should occur no more than three (3) working days after the case is reported.

A patient interview checklist is provided below:

- Symptoms type and onset, especially cough and sputum production
- Places where the patient spent time while they were infectious (e.g., households including guests and visitors, work, school, leisure, transportation, incarceration, travel, and medical, dental, and beauty appointments)
- Activities and who was there during infectious period
- How often and long the contacts were exposed
- Locating information for the contacts
- Characteristics of each place (room size, windows open or closed, time spent in each place, etc.) to help determine the risk of *M. tuberculosis* transmission
- Provision of written educational materials regarding TB to the patient

Some patients may be reluctant to identify some or all their contacts. For example, a patient may not want to identify the people with whom they use illegal drugs. The interviewer should be sensitive to the patient's fears, explain the importance of testing the contacts, and assure the patient that all information will be kept confidential (including the patient's name).

Review information and develop a plan for the investigation

The investigator should meet with others on the contact investigation team to share all information gathered. A plan should be created to:

- Confirm the infectious period and degree of infectiousness.
- Prioritize the contacts.
- Prioritize places to conduct field visits.
- Planning should include the following:
  - communication between members involved in the investigation,
  - clarification of jurisdictional issues,
  - establishment of timeframes and methods for investigation activities,
  - data collection,
  - overall management
  - determine if media attention may become an issue, and
  - identify time to discuss outcomes, challenges, and progress.

Refine the infectious period and degree of infectiousness

The investigator should use interview information to determine if the estimated infectious period, degree of infectiousness, and timeframe need to be redefined. Additional information should be gathered to clarify symptom onset date. Additional interviews should be conducted to clarify information as necessary and to assist with completing and finalizing information related to the

contact investigation. It is important to build trust and rapport with the patient. Use open ended questions to facilitate helpful responses.

Prioritize contacts

The investigator should gather information from the initial interview to prioritize contacts who need assessments. Priority assigned to each contact should be based upon the following:

- Likelihood of transmission from the case
- Contact's risk for TB disease
- Symptoms present
- Risk for rapid development of TB (children under 5 years of age and persons with immunocompromising conditions)
- Repeat or extended exposure to the initial patient
- Exposure setting, i.e. small, crowded, or poorly ventilated spaces or during medical procedures that can release substantial numbers of *M. tuberculosis* into the air (i.e., bronchoscopy)

If contacts have symptoms, they should be evaluated immediately as they could possibly be transmitting TB to others. A provider meeting should occur to discuss high priority contacts with management teams at the local and/or state levels. Ongoing priority assessment should be done weekly and updated based upon results of the investigation.

Conduct field visits

A field visit entails visiting the patient's residence and other places where the patient has been. This allows the investigator to assess and view the environment where transmission may have occurred.

Field visits serve four main functions:

- Identify additional cases of TB disease.
- Identify additional contacts.
- Gather additional information about the environmental characteristics of places where exposure occurred.
- Establish relationships for additional contact investigations at those locations, if necessary.

During field visits, the investigator should:

- Maintain confidentiality of both patient and contacts.
- Refer persons with symptoms of TB disease for immediate medical evaluation.
- Take notice of environment characteristics such as room size, ventilation, low ceilings, dense air, etc.
- Consider the possibility of TB testing onsite at the field visit site.

Safety for field visits

Follow LHD safety protocols, which may include recommended precautions such as:

- Wearing an ID badge
- Working in pairs
- Having a working cell phone
- Limiting visibility of valuable items
- Informing supervisor of whereabouts when doing a field visit

Infection control precautions during field visits

Infection control precautions should be followed when visiting or interviewing both presumed and confirmed TB patients. Investigators should be fit tested and wear appropriate N95 respirators.

Conduct contact assessments

Contact investigators should meet and assess priority contacts within three working days of being identified. Confidentiality should be maintained, not revealing any details about the case.

Major activities of the contact assessment are:

- Maintaining confidentiality
- Collecting and confirming information
- Conducting a medical evaluation including:
  - Medical history
  - HIV test
  - TB symptom review
  - TST or IGRA to confirm infection

Determine whether to expand or conclude an investigation

It is imperative to continually review findings that could identify a need to expand the investigation beyond the priority contacts. Expanding the investigation means assessing contacts who were not originally considered a priority, or finding new contacts who need a TB assessment. Expanding an investigation is determined by evidence of recent transmission which confirms that a patient was infectious and implies others may have been infected.

Evidence of recent transmission may include:

- TB infection or disease in contacts younger than 5 years of age
- Changes in contacts' TST or IGRA status from negative to positive at time of retesting 8-10 weeks after last exposure
- Greater than expected rate of TB disease or TB infection among priority contacts

- Evidence of secondary transmission. An infected contact who develops TB disease is referred to as a secondary case. Secondary cases need to have their own contact investigations completed right away. If more than one secondary case exists, the contact investigation may need to be expanded as it may suggest an outbreak is occurring, especially if genotypes match and confirm transmission links. If other cases present with the same genotype in the same geographic area around the same time and neither case was named, it may suggest that a missed connection occurred between the two cases during the contact investigation.
- TB disease among contacts that were not initially considered priority contacts. If recent transmission is found or low-priority contacts test positive, this may indicate the need to expand the investigation to other low-priority contacts. Other steps may need to include reinterviews to ensure all priority contacts have been assessed. Recent transmission may indicate an outbreak is occurring.

Concluding a Contact Investigation

A contact investigation may be concluded if:

- All contacts have been evaluated for both TB infection and TB disease.
- Contacts with LTBI have completed or are near completion of treatment.
- No additional secondary cases of TB are found through contacts or genotyping.

Evaluate the Contact Investigation Activities

An evaluation plan should occur after the contact investigation has concluded.

Evaluation plans should include the following:

- Were the appropriate contacts identified?
- How many contacts had LTBI?
- How many contacts completed LTBI therapy?
- How many additional cases of TB disease were found?
- How many secondary cases of TB disease completed treatment?
- How many contacts were unable to be located?
- How many contacts were located but were not evaluated?
- What were the timelines of identifying and assessing contacts and starting treatment, if necessary?
- Was the contact investigation performed in all required settings?
- Was the contact investigation expanded appropriately?

References

Centers for Disease Control and Prevention (CDC). IGRAs-Blood Tests for TB Infection Fact Sheet. https://www.cdc.gov/tb/publications/factsheets/testing/igra.htm (Accessed March 2024).

Centers for Disease Control and Prevention (CDC). Latent Tuberculosis Infection: A Guide for Primary Health Care Providers. Available from https://www.cdc.gov/tb/publications/ltbi/pdf/LTBIbooklet508.pdf (Accessed March 2024).

Centers for Disease Control and Prevention. Mantoux Tuberculin Skin Testing Products: https://www.cdc.gov/tb/education/mantoux/default.htm (Accessed March 2024).

Centers for Disease Control and Prevention. Self-Study Modules on Tuberculosis. Contact Investigations for Tuberculosis https://www.cdc.gov/tb/education/ssmodules/pdfs/Modules8-508.pdf Accessed March 2024).

SECTION 4: SPECIAL CONSIDERATIONS

SECTION 4.A: Class B TB Arrivals

Local Health Department Responsibility

- LHD staff will coordinate follow up appointment(s) for persons with Class B TB. If financial assistance is needed, LHD staff will coordinate with the DHHS TB Program.
- LHD staff will complete the TB Follow Up Worksheet in EDN or return form to the DHHS TB Program.
- The Refugee Health Program will coordinate refugee Class B TB arrivals who are screened at a refugee health clinic. LHD staff may request information regarding the outcome of visit from clinic for the refugee patient.
- Refer to provider guide for additional information on Class B arrivals and evaluation guidance.

References

Centers for Disease Control and Prevention: Guidance for Screening for Tuberculosis Infection and Disease during the Domestic Medical Examination for Newly Arrived Refugees-Tuberculosis: https://www.cdc.gov/immigrantrefugeehealth/guidelines/domestic/tuberculosis-guidelines.html (Accessed March 2024).

Nebraska Department of Health and Human Services. Refugee Health Screening Procedures. https://dhhs.ne.gov/Documents/Refugee-Health-Screening-Policy-and-Procedures.pdf (Accessed March 2024).

SECTION 4.B: Higher Education Institutions

Institutions of higher education should have a TB policy for students and staff.

Purpose: A TB policy can help reduce the risk of TB exposure to students and faculty in higher education institutions.

TB can be found on college campuses therefore it is encouraged to screen the following:

- Students,
- Intuition employees, and
- Foreign born students.

It is important for the LHD to have a relationship with the student health center and local clinics so that students have access to TB testing and treatment services. If a case of LTBI is identified, staff at an institute of higher education should contact the LHD.

Higher education institutions can refer to "The Model TB Prevention Program for College Campuses". Sample forms and policies can be found there for institutions both with and without student health centers.

SECTION 4.C: Incentive and Enablers

Defined guidance for incentives and enablers for TB patients in Nebraska.

Purpose: To encourage treatment completion for patients with barriers.

Overview of Incentives and Enablers

Taking TB medication can be challenging process. It is important patients with TB take their medicine correctly, without skipping or taking partial doses. Responsibility for treatment success is assigned to the health care provider, not the patient.

When DOT is utilized, incentives and enablers can be a successful part of TB case management.

- Incentives are "small rewards" that encourage patients to complete TB treatment by motivating them with something they want or need.
- Enablers help patients overcome barriers to completing their TB treatment.

Health care professionals can use incentives and enablers to motivate or reward, not coerce. Incentives and enablers are not required for all TB patients. Incentives and enablers should be utilized based upon the patient's needs.

Using Incentives

Keep a verbal or written agreement early in the process. Be open about if the patient meets the DOT appointment (or whatever is agreed upon), they will receive the agreed upon incentive. If the patient does not keep their end of the agreement, withhold the incentive. Firmly, but kindly explain why the incentive cannot be given and what may be done to start receiving the incentive again. Incentives may be used on an ongoing basis—weekly, monthly or when key milestones are reached.

Using Enablers

Find barriers that may interfere with the patient's ability to adhere to the treatment plan and provide something that will assist overcoming that barrier. Ideas would be transportation barriers for clinic and DOT appointments, poor appetite or malnourishment or a child who dislikes the taste of medication.

Missed DOT Doses

If a DOT dose is missed, the patient should be contacted as soon as possible. Missed doses can be used as an opportunity to identify barriers to adherence and find a way for successful treatment.

Examples of Incentives and Enablers

Incentives	**Enablers**
Food assistance (snacks, meals, fast food vouchers	Transportation vouchers (bus passes or taxi vouchers)
Clothing or personal products	Nutritional supplements to increase weight gain or foods to help take with medicine
Books, toys, stickers, games	Convenient clinic hours and locations
Stipends	Clinic personnel who speak the languages of the population served
Assistance in finding or providing housing	Reminder systems and follow-up of missed appointments

Persons Eligible to Receive Incentives and Enablers

1. Persons with pulmonary and/or extrapulmonary active TB disease.
2. Children under the age of 18 reliant on persons with active TB disease.
3. Close contacts to a case of active TB disease who are diagnosed with LTBI and are on treatment or window prophylaxis.
4. Special situations that are evaluated on a case-by-case basis.

Incentives and Enablers Eligible for Request

1. Gift cards to:
    a. Purchase nutritional supplements or groceries for persons with active TB disease, and in need of food assistance.
    b. Purchase nutritional supplements or groceries for children under the age of 18 living reliant on person with active TB disease.
    c. Purchase gas transportation to and from clinic appointments and DOT meetings, if occurring away from home.

2. Reimbursements for the purchase of:
    a. Clothes, shoes, hygienic products, and toiletries
    b. Gas, bug passes/tokens, or taxi services for transportation to and from clinic appointments and DOT meetings, if occurring away from home
    c. Housing, utilities, or other costs necessary to assure the person has a stable and safe living environment.
    d. Incentives and enablers ineligible for request
        1. Gift cards to purchase, or reimbursements for the purchase of:
            a. Cigarettes
            b. Cash
            c. Alcohol
            d. Gambling materials
            e. Refillable credit cards

Nebraska DHHS TB Program Responsibilities

1. Nebraska DHHS does not require tracking information from the LHD on how gift cards (IE) are used.
2. The TB Program Manager is authorized to make the initial review of all IE requests.
    a. All gift cards (regardless of total sum) and any reimbursement requests less than $100:
        a. Nebraska DHHS TB Unit and Supervisor must approve of the request on Nebraska Incentive and Enabler Form before purchases can be made by LHD.
3. The program will distribute electronically or by mail gift cards.
4. The local health department will need to confirm acknowledgement of receipt of gift cards.
5. If patient is abusing incentive and enabler program, the patient will no longer be eligible for incentive or enabler program.
6. Incentive and enabler program will be based upon federal funding availability to support the program.
7. The program will keep a lot of all gift cards purchased and sent out to Local Health Departments.

4.D: Transportation

Defined guidance for transportation assistance

Purpose: To provide transportation resources for patients who have exhausted transportation resources for required TB medical appointments.

Protocol for Financial Assistance for Ride Assistance for Non-Infectious patients

(Patient must be deemed non-infectious by local health department)

- Patients must be a presumed/active TB patient.
- Patient must have an approved/pending TB Application through the Nebraska TB Program
- All alternative transportation options must be exhausted before requesting Nebraska TB Program Assistance.

Patients with Medicaid

1. Patients will work with their Medicaid provider for Transportation to clinic appointment. LHD will assist as needed to ensure successful transportation can occur.
2. Medicaid may reimburse transportation for telehealth appointments at local health department. If distance is an issue, please consider this consideration and request. This may be more feasible in rural localities if traveling far is problematic.
3. If the Medicaid transportation fails to show up for scheduled visit repeated times, please contact the TB Program Specialist RN for assistance.
4. Check if provider is willing to do telehealth appointment if barriers exist or are present.

Patients without Medicaid

1. Check with patient to see if family or friend can assist with transportation.
2. Check if provider is willing to do telehealth appointment.
3. Check if appointment can be rescheduled when ride assistance is available.
4. Some LHDs may transport patients to medical appointments. Please consider this option if your local health department can do transportation for patients.
5. Is the patient able to afford other low-cost transportation options (i.e., senior transportation, other community transportation).
6. Are there community resources available to assist with transportation to medical appointments (vouchers, gas card).
7. Check if incentives/enablers for transportation vouchers and/or gas could be utilized to assist patient to TB medical appointment.

*Based upon state funding availability

Bus (for locations with bus service only)

1. Is patient able to move freely without impediments?
2. Is patient able to navigate the bus route independently? (i.e developmental delays, mental illness, anxiety)
3. Does bus have proper resources for patients with Limited English Proficiency (LEP) to effectively ride the bus system?
4. Is patient literate and able to follow directions/use a map for public transportation?
5. Is the patient able to afford and purchase a bus pass?
6. Does the LHD have assistance with public transportation to offer bus passes?

- If the above options have been exhausted or there is no bus service locally, please provide cost estimates for least expensive transportation options to local health department or clinic.

- Please provide estimates to the TB Program for the most cost-effective option that would meet the transportation needs through the TB Program.

Infectious Patients

Please contact the TB Program Specialist RN for transportation needs for infectious patients. Infectious patients are not allowed to utilize public transportation.

4.E: Housing patients with Presumed or TB Disease

Guidance for housing assistance for patients with acid fast bacillus (AFB) sputum-smear positive patients and patients with confirmed or suspected pulmonary multidrug resistant tuberculosis (MDR-TB) regardless of sputum smear status.

Purpose: To reduce the spread of TB to the community

Patients with presumed TB or TB disease who lack resources and have an approved TB Program Application.
Patients will be considered for housing assistance after

1. Inability to self-isolate
2. Inability to provide or find alternative resources to isolate in an appropriate housing unit

3. Have exhausted community resources in community (Community Action Agencies, local housing agencies, hotels, family, and friend resources)
4. Patient is compliant (if non-compliant would proceed with Directed Health Measure)
5. Patient is considered infectious per program standards.

*Patients are considered infectious based upon risk

1. Patients must be receiving medications via DOT. Mechanisms must be established to ensure that patients comply with DOT and infection control instructions.
2. If patients leave the residence, the activities approved in advance by the local TB program, he/she must be provided with and required to wear a surgical mask. A supply of replacement surgical masks must be available.
3. Suitable accommodation should be used to help the patient remain in the arranged residence (television, radio, telephone for local calls).
4. It is the responsibility of the LHD to ensure the integrity of the isolation by requiring and ensuring the following:
    a. Appropriate mechanisms are in place for the provision of food, laundry service, and cleaning.
    b. Staff, volunteers, and visitors do not enter the unit unnecessarily.
    c. Anyone, including volunteers, needing to gain access to the housing unit must be trained in TB prevention methods.
    d. Employees, volunteers, and visitors entering the residence must use an appropriate respirator (fit tested).
    e. A sign must be clearly posted advising person entering the residence to use respiratory precautions; and

*based upon state funding availability

Reference

Heartland National TB Center. Model TB Prevention Program for College Campuses. https://www.heartlandntbc.org/wp-content/uploads/2021/12/model_tb_prevention_program_college_campuses.pdf (Accessed March 2024).

PART 3: STATE RESPONSIBILITIES

SECTION 1: Payment and Reimbursement

Defined guidance for payment assistance for patients with financial need.

Purpose: To assist patients with resources available through the DHHS TB Program.

Patients are not required to use the program's services for either medications or eligible medical services. Financial assistance is based upon state fund availability and patients meeting program qualifications.

To be eligible for financial assistance through the DHHS TB program, as allowed by Nebraska Revised Statute 71-3614, a patient must:

- Be a current Nebraska resident, with one of the following proofs of residence:
    - State-issued ID, such as a driver's license
    - Lease agreement
    - Home or car insurance policy
    - Utility bill (gas, water, electric)
    - Bank statement
    - Pay stub that includes address of residence
- Meet one of the following criteria:
    - Has been diagnosed with presumed TB or active TB disease, or
    - Have Interjurisdictional Notification (IJN) confirmation of either presumed or active TB disease, or
    - Named as a TB contact by the Local Health Department, or
    - Designated as having Class B TB status verified by Electronic Disease Notification System (EDN) and not eligible for services through the Nebraska Refugee Health Program
    - Have been diagnosed with LTBI.
- Meet the following income guidelines:
    - At or below 215% federal poverty level based upon household size. Applicants must have less than $4,000 in assets.
        - Total Assets greater than $4,000 will exclude you from the program. Assets include:
            - Checking, savings, and other bank accounts;
            - Real property that is not excluded below;
            - Trusts for which the applicant is grantor or beneficiary;
            - Retirement accounts such a 401 (k), IRA, or other investment accounts;

- Automobiles, boats, and motorhomes not excluded below;
- Other asset types not excluded below

- Do not include the below assets in your $4,000 calculation.
  - Real property which is owned by the client or the client's household and which the client occupies as a home. Lots adjacent to a home are considered an available resource if they can be sold separately;
  - Household goods;
  - Clothing;
  - A motor vehicle if used for employment or medical transportation;
  - A motor vehicle used as the client's home;
  - The cash value of life insurance policies;
  - Irrevocable burial trusts;
  - Burial spaces;
  - Stocks, inventories, and supplies used in self-employment;
  - U.S. savings bonds;
  - Any unavailable employment related retirement account that is held by the employer; and
  - Earned income from a child 18 years of age and younger

- Uninsured status (after applying for Medicaid, Refugee Medical Assistance (RMA), Ryan White, Medicare and/or private insurance and being found ineligible).
- Patients must submit a "TB Program Application" on the redcap website and be approved to be eligible for TB program services. Please use below website https://epi-dhhs.ne.gov/redcap/surveys/?s=HACLA8TMTA7HNJKJ The TB Program staff may allow exceptions due to personal hardships (moving, extended hospitalization, etc.) for application coverage outside of 30 days of presumed of TB disease diagnosis.

- All Supplemental information such as proof of income and proof of residency must be provided within 30 days of submitting this application. Should this information not be provided within 30 days, you may be deemed ineligible and be liable for any and all expense. Please use below website. https://epi-dhhs.ne.gov/redcap/surveys/?s=ZVUpewg9UYcmFjwG

Reimbursable/Covered Services

- **Medication**

- The DHHS TB Program only reimburses for prescribed drugs listed on the Reimbursable Drug Formulary, or non-formulary drugs that have received prior approval from the DHHS TB Program Specialist RN. If liquid medication is needed due to medical necessity and not covered by other payers, the program will reimburse. Please note Rifapentine will not be covered as copays or WAC or SMAC rates. The four-month regimen of Rifapentine, Isoniazid, Pyrazinamide, and Moxifloxacin is not covered.

- **TB Diagnosis or presumed TB**
  Necessary TB diagnostic services can be received in an outpatient setting only (i.e., clinic, radiology, lab). Inpatient hospitalizations are not covered for either insured or uninsured patients unless a Directed Health Measure (DHM) is in place. Chest CT scans are not covered without prior approval from the TB Program. Emergency room visits are considered inpatient for the purpose of the TB program.

- **TB Contact**
  Necessary TB diagnostic services due to exposure to an active TB patient can be received in an outpatient setting only (i.e., physical exam, chest x-ray, lab).

- **Class B TB**
  The initial office visit only for a person with Class B TB status, which may include physical exam, lab work, and chest x-ray. No follow up visits are covered.

The DHHS TB Program is always the payer of last resort and will only pay for listed services after all other payment sources, including Medicare, Medicaid, private insurance, or any other health insurance, have paid. Costs for TB-related services that aren't reimbursed by the DHHS TB program or other payers are the responsibility of the client.

Reimbursable Drug Formulary (Effective October 1, 2023)

Generic Name	Brand Name	Reimbursable
Ethambutol	Myambutol	Generic
Isoniazid	Nydrazid	Generic
Levofloxacin	Levaquin	Generic
Linezolid	Zyvox	Generic
Moxifloxacin	Avelox	Generic
Pretonamid	Dovprela	Generic
Pyrazinamide	Rifater	Generic
Rifampin	Rifadin	Generic
Vitamin B6	Aminoxin, Nestrex Vitell	Generic

Please keep in mind the following:

- The TB Program reimburses for prescribed generic medications only, unless a generic option is not available, then "Brand" will be listed in the "Reimbursable" column.
- TB can occur in all anatomical sites; therefore, medication will vary and be at the discretion of the DHHS TB Program Specialist RN for approval.
- The DHHS TB Program can reimburse copays on TB medications only for both presumed and active disease patients for patients with private insurance.
- High deductible plans without pharmaceutical coverage at the time of service can be reimbursed at WAC (Wholesale Acquisition Cost) or SMAC (State Maximum Allowable Cost) rates.
- All patients who are prescribed Bedaquilline should submit prescriptions to the Johnson and Johnson patient assistance program: https://www.jjpaf.org/.
- If assistance with a Bedaquilline copay is needed, DHHS upper management must approve, and the Deputy Director will need to sign off on the copay reimbursement.

For patients without insurance coverage or with high deductible plans

The DHHS TB program reimburses the lesser of the WAC or SMAC rates. If the client payment amount is less than WAC or SMAC, the lesser amount is reimbursed. Any costs remaining after the DHHS TB Program has paid, are the client's responsibility. For patients with high deductible plans, copays may be covered once high deductible plan limit has been met.

For patients with insurance coverage

Invoices must be submitted to insurance providers first. All requirements from insurance providers, including securing private authorization, must be met prior to invoicing the DHHS TB Program. If insurance coverage is limited to certain TB medications, other necessary TB medications will be covered at the WAC or SMAC rate without insurance coverage.

Reimbursement for Medical Procedures for Tuberculosis Services

The DHHS TB Program includes a client assistance program that provides payment for pharmaceutical and medical services to eligible Nebraska residents with presumed or active disease, contacts, and Class B TB arrivals. It does not cover costs related to any other illnesses. Patients must inform the local health department nurse/staff that they wish to seek financial assistance. Patients must meet eligibility guidelines listed above, and only services listed above can be covered. Patients with Medicaid do not need to submit a copay assistance form as Vitamin B6 will be covered.

Submission Process for TB Bills

Medical

Local health department staff must make sure that cases are entered into NEDSS or that the appropriate out of state Interjurisdictional form is sent to the DHHS TB Program Specialist RN before submitting invoices on behalf of patients. The LHD must notify the TB Program, preferably in a secure email regarding contacts who are needing financial assistance. All invoices need to have the

- Billing organization information
- Patient name
- Date of service
- CPT code,
- Amount billed,
- Patient account number and
- Invoice number

to be processed and an approved TB Program Application on file. The program expects to receive invoices containing these components for each patient who has been approved to receive financial assistance. Patient statements are not acceptable documents for the TB program.

Pharmacies

- Submit prescription receipts that contain patient name, RX #, date of service, NDC#, drug name/strength, quantity, and cost.
- If there are more than 10 prescriptions, please submit the attached excel sheet billing statement or a form that contains the required information. Fewer than 10 prescriptions may be submitted individually to the program. Please submit receipts either via fax 402-742-8359 or via secured email to kristin.bertrang@nebraska.gov
- Pharmacies must have an approved "Latent Tuberculosis Checklist" signed by the TB Program before filling prescriptions for patients enrolled in the Latent Tuberculosis Pharmacy program who will be submitting reimbursement.
- Pharmacies who serve LTBI patients and submit pharmacy bills need to have a signed "Latent Tuberculosis Pharmacy Enrollment Form" approved and on file.

Patient documentation may be faxed to 402-742-8359 or sent via secure email to kristin.bertrang@nebraska.gov.

Invoice Processing

- Invoices are processed at least monthly.
- Invoices will be processed the month following the month in which they were received. For example, invoices received May 1-31, will be processed in June.

As with medications, the DHHS TB Program is the payer of last resort for approved medical services and pays at current Nebraska Medicaid reimbursement rates after all other payment sources have determined and paid.

If there are amounts leftover, the provider may bill the client.

The list of approved TB CPT codes is shown below. Other CPT codes may be covered with approval of the DHHS TB Program Specialist RN based upon clinical necessity.

CPT Code	Purpose
36415	Lab Draw
71046	Radiologic examination, Chest two View X-ray
71046 (26)	Radiologic examination, chest-nonhospital
71250	CT Thorax W/O contract (approval prior)
80053	Complete Metabolic Profile
83036	Hemoglobin, glycol
85025	Complete Blood Count
85652	Sedimentation rate, erythrocyte, automated
86140	C-Reactive Protein
86480	Tuberculosis Test, Cell mediated immunity antigen response measurement, gamma interferon
86580	Tuberculin Skin Test
92012	Ophthalmological services: medical examination and evaluation, with initiation or continuation of diagnostic and treatment program, intermediate, established patient
92015	Determination of refractive State of Nebraska
92134	Scanning computerized ophthalmic diagnostic imaging, posterior segment, with interpretation and report, unilateral or bilateral; retina
92250	Fundus photography with interpretation and report
93010	Electrocardiogram, routine ECK with at last 12 leads, interpretation, and report only
99202	Office or other outpatient visit for the evaluation and management of a new patient
99203	Office or other outpatient visit for the evaluation and management of a new patient
99204	Office or other outpatient visit for the evaluation and management of a new patient

99211	Office or other outpatient visit for the evaluation and management of an established patient a
99212	Office or other outpatient visit for the evaluation and management of an established patient
99213	Office or other outpatient visit for the evaluation and management of an established patient
99214	Office or other outpatient visit for the evaluation and management of an established patient
99215	Office or other outpatient visit for the evaluation and management of an established patient

Hospital visits may be covered only for DHM approvals.

CPT Code	Purpose
99222	Initial hospital care, per day, for the evaluation and management of a patient
99223	Initial hospital care, per day, for the evaluation and management of a patient
99231	Subsequent hospital care, per day for the evaluation and management of a patient
99232	Subsequent hospital care, per day, for the evaluation and management of a patient
99233	Subsequent hospital care, per day, for the evaluation of patient
99356	Prolonged service in the inpatient or observation setting, requiring unit/floor time beyond the usual service

Reference

Nebraska Legislature. Nebraska Revised Statute 71-3614. Chapter 71-3614. https://nebraskalegislature.gov/laws/statutes.php?statute=71-3614 (Accessed March 2024).

SECTION 2: Outbreak Detection and Response

The TB Program will partner with the DHHS emergency response team to respond and react to an outbreak in timely and expedited manner.

Procedure: The program will respond to outbreaks and implement the procedures to mitigate the outbreak.

Outbreaks may be detected through the following activities:

- Observations from health department staff or others in the community
- TB contact investigations
- TB case surveillance
- TB genotype surveillance

TB prevention and control, including local outbreak response, are the responsibility of the Nebraska Department of Health and Human Services and their partners at the LHD. Shared support and partnership should be expected.

Overall management of the TB outbreak detection and response plan is the responsibility of the DHHS TB Program Specialist RN. The DHHS TB Program Specialist, RN will oversee training and coordination of key team members and stakeholders. Meetings will be held on an as needed basis.

TB outbreaks in low incidence locations should be monitored by surveillance efforts. Observations such as more DOT or additional TB cases should be taken seriously and investigated by the LHD.

Steps involved in outbreak response include:

Confirm the existence of an outbreak. Investigations help to determine if an outbreak is occurring before starting an outbreak response.

Some signs may include:

- More cases than expected occurring within the timeframe and geographic area.
- Evidence of recent transmission of *M. tuberculosis* among those cases (see Part 2, Section 3, contact investigation procedure step 10 for more details on evidence of recent transmission).
    - Look for common characteristics among cases including similar ages, homeless status, substance use, or previous incarceration.
    - Look for Epi links which may include the same workplace, shelter, school, etc. to help identify contact risk. Each situation will need to be based upon individual details in outbreak.
    - Genotype surveillance may also be useful to detect outbreaks. Since each strain has a distinct pattern, knowing the genotype can prove or disprove linkage between cases. Case involved in the same chain of transmission often have matching genotypes and a

genotype cluster can indicate that an outbreak is occurring. Multiple partners including the DHHS TB Program Specialist RN, the DHHS Infectious Disease Data Manager, and the Nebraska Public Health Lab (NPHL) have access to the TB Genotyping Information Management System (TB GIMS), a secure national database. See technical guide for more information about genotyping.

- Some situations may not have genotyping information (clinical cases, culture negative cases, presumed cases). If Epi links can be reasonably established, then proceed with outbreak response.

Define and list outbreak cases

A standard set of criteria must be used to determine which cases are included in a TB outbreak. Deciding which cases to investigate helps to estimate the number of contacts needing testing and the plan for needed resources.

Criteria may include:

- TB genotype information (if available)
- Characteristics of the affected persons
- Information about location, ventilation, and exposures
- Time during which cases were identified
  The outbreak line list or spreadsheet allows investigators to quickly see key information about every case. Outbreak line lists should include identifying information, demographics, risk factor information (i.e., incarceration or homeless status), and clinical/laboratory information (sputum smear results, chest x-ray results, etc.). This should be updated and shared with team members as new information is found.

Examine existing information about outbreak cases

Creating the line list begins the process to further explore information in a structured way. Investigators should complete an outbreak hypothesis, which is a theory about how, when, and where transmission may have happened.

Each case should be assessed, and criteria utilized in the same way.

- May include place of birth (US born or foreign-born), age younger than 5 years, place of birth, age, medical risk factors, social risk factors, AFB smear positive, and/or cavitary TB disease.
- May also include out of state travel or where cases sleep, work, volunteer, go to school, or engage in leisure activities.
- Time of case identification. Utilizing an Epi curve can assist when transmission occurred early in the outbreak or if ongoing transmission is still occurring. An epi curve provides important information about an outbreak.
- Plot the infectious periods to show the duration of the outbreak. This can show when exposure happened at certain locations and may help with contact investigations in those places.

- Compile contact investigation results for each of the outbreak cases. Each contact investigation should be examined as previous contact investigations may have been completed. Compiling and analyzing can identify high risk contacts and/or infectiousness of cases. This can help prioritize the activities of contact investigators and determine how the outbreak investigation proceeds. Prior contact investigations can be analyzed to make sure all contacts were properly identified and evaluated.

Convene the outbreak response team and develop outbreak hypotheses

The DHHS TB Program Specialist, RN will assemble and manage the outbreak response team in addition to working with DHHS leadership to direct resources and assign staff to assist with outbreak response activities.

- Outbreak response teammates may include but are not limited to:
    - LHD staff
    - Nebraska DHHS staff, including TB program, related programs, and administrative staff, as well as leadership.
    - Other state staff including Department of Corrections and ICAP
    - Medical consultants
    - NPHL staff
    - State and local public information officers
    - CDC partners as necessary
- Duties of the outbreak response team include:
    - Developing the initial outbreak hypothesis
    - Reviewing outbreak response plan and modifying as needed
    - Setting the response priorities, clarifying roles and responsibilities, and ensuring other program support and involvement as needed
    - Establishing time frames
    - Establishing schedules for case conferences or meetings to review challenges and progress.
    - Establishing a communication plan among staff and others involved in the investigation.
    - Determining potential media interest
    - Discussing external communication Plans

Fill information gaps

The outbreak response team needs to confirm or collect new information (i.e., fill in information gaps) based upon the initial outbreak hypothesis. Updates should be made to the line list as additional information is gathered.

Information can include:

- Conducting public record searches.
    - Use all available resources to exhaust finding case and contact information.
- Re-interviewing cases and contacts (follow initial interview and contact investigation procedures listed in Part 2).
    - Consider a single interview to confirm locations, activities, or behaviors missed in prior interviews.
    - Consider offering incentives and enablers to enhance success.
    - Using a standard approach such as an interviewing checklist can be helpful when collecting information about each case's relationships, activities, and interests.
    - Possible places of transmission should be explored by asking about behaviors, activities, or locations that may be associated with the outbreak.
    - Sharing information with team members is valuable as it may change further interview questions.
    - The opportunity to reeducate to patients on the importance of TB transmission, pathogenesis, and testing and treatment for TB disease and LTBI should be utilized.
- Repeating field visits and visiting new sites as needed.
- Updating clinical findings and lab results for cases and contacts. Previous information may have been pending. If so, updated results should be available. Follow-up should occur on any previously incomplete assessment or treatment.

Implement the specific outbreak response plan

This step focuses on finding contacts and assessing them for TB infection or TB disease. It is important to find the contacts to prevent additional outbreak cases. Finding contacts as part of an outbreak response is reflective of contact investigation on a larger scale. The same procedures for contact investigation should be followed.

- Additional activities to consider may include:
    - Extending clinic hours to accommodate referrals.
    - Providing transportation if policy allows.
    - Providing services during nights and weekends.
    - Providing DOT to a larger number of people.
    - Offering incentives and enablers to encourage treatment completion.
- Successful implementation of the outbreak response plan requires careful attention to the following:
    - Ensuring adequate resources for implementing outbreak response activities.
        1. Many LHDs do not have adequate resources for an outbreak response. It is important to consider the following:

a. Have other staff assist with outbreak response activities.
b. Utilize other clinicians to review chest x-rays, conduct evaluations, and oversee contacts and presumed cases.
c. Recruit outreach workers who have skills to support affected populations (i.e., language access or cultural competencies) to assist with interviews, assessments, and treatment.

2. Resource availability should be discussed at each outbreak response meeting as other partners can become overwhelmed quickly with other job-related duties.

- Using a standardized approach to collect and manage data.
    1. A systematic and secure approach to data maintenance is key.
    2. An epidemiologist or a data manager should be utilized to assist the outbreak response data entry, management, and analysis.
- Directing the specific response activities based on the evolving findings of the investigation.
    1. Findings should be monitored and interpreted on a regular basis to stay on track. New thoughts should be discussed at outbreak team meetings. This will help the outbreak manager make decisions and determine if adjustments need to occur.

Current Outbreak Response Team Members

IDPC Program Administrator	Jeri Weberg-Bryce
TB Program Specialist RN	Kristin Bertrang, RN
Infectious Disease Unit Data Manager	Shannon Lawrence
Epidemiologist	Dennis Leschinsky
HIV Surveillance Coordinator	Dennis Leschinsky
Ryan White Program Manager	Logan Reynolds
State Epidemiologist	vacant
TB Administrative Support	Jennifer Sayre
Douglas County Health Department	Chad Wetzel
Lincoln/Lancaster County Health Department	Angie Elliott, RN
Centers of Excellence	Mayo TB Center of Excellence
Centers for Disease Control and Prevention Project Officer	Dawn Tuckey
Nebraska TB Medical Consultants	Dr. Daniel Brailita Dr. James Nora Dr. Kari Neemann
Nebraska Public Health Lab	Dr. Peter Iwen

Corrections Liaison	Danielle Heller
ICAP	Rebecca Martinez
Lead Public Health Attorney	Teresa Hampton

Roles and Responsibilities

Title/Program	Name	Detection	Response	Activities	Skills
DHHS IDPC Program Administrator	Jeri Weberg-Bryce		X	Keep leadership informed. Administrative support and provide logistical and administrative support to the cluster response team.	Knowledge of data security and confidentiality. Crisis management and risk communicatio n. Fiscal management
DHHS TB Program Specialist RN	Kristin Bertrang, RN	X	X	Oversee and support LHDs, review and synthesize data, determine cluster, assessment activities, and provide education.	Contact investigation knowledge. TB medical knowledge. Education Knowledge of data security and confidentiality,
DHHS Data Program Manager	Shannon Lawrence	X	X	Review and synthesize surveillance and prevention data for cluster assessment activities. Develop data visualization tools. Manage cluster response datasets. Analyze data. Communicate with LHDs.	Data Management, development of data collection tools, data analysis, and the ability to use TB GIMS to analyze and interpret clusters.

DHHS IDPC Epidemiologist	Dennis Leschinsky	X	X	Analyze and identify how outbreak happened.	Knowledge of spreading of TB. Ability to create graphics to identify source cases.
DHHS HIV Surveillance Coordinator	Dennis Leschinsky	X	X	Ensure HIV coinfected patients are entered.	Knowledge of data security and confidentiality Ability to make sound evidence-based decisions with limited data.
DHHS Ryan White Coordinator	Logan Reynolds	X	X	Oversee linkage to care and access to other Ryan White Services for eligible patients.	Knowledge of data security and confidentiality Detailed knowledge of HIV care program activities.
DHHS State Epidemiologist	vacant	X	X	Support staff detecting and responding to clusters or outbreaks.	Knowledge of data security and confidentiality.
DHHS TB Administrative Support	Jennifer Sayre		x	Process bills related to TB services and applications.	Knowledge of data security and confidentiality.
DHHS Public Information Officer	Jeff Powell		X	Engage with media as needed. Knowledge of public information procedures. Ability to communicate	Knowledge of data security and confidentiality.

				verbally and in writing.	
Douglas County Health Department	Chad Wetzel	x	x	Engage with local resources available. Procure financial resources.	Knowledge of resources at local level. Planning of staff at local level.
Lincoln/Lancaster County Health Department	Angie Elliot, RN	x	x	Engage with local resources available. Procure financial resources.	Knowledge of resources at local level. Planning of staff at local level.
Center of Excellence (COE)	Mayo TB Center of Excellence	X	X	Offer medical consultation services. Hold ad hoc meetings as necessary to contain outbreak.	Medical knowledge of TB and outbreak management.
CDC Project Officer	Dawn Tuckey	X	X	Offer consultation outbreak and response support. Connect with Outbreak Response team at CDC.	Offer programmatic support for outbreak management. Data confidentiality and security.
TB Medical Consultants	Dr. Brailita, Dr. Nora, and Dr. Neemann		X	Offer medical consultation services regarding outbreak management. Partner with COE for clinical guidance on outbreak management.	Medical knowledge of TB and outbreaks. Participate in meetings with COE for outbreak management as determined.

Nebraska Public Health Lab	Dr. Peter Iwen	X	X	Provide lab support with testing and results. Provide manpower and supplies to coordinate laboratory testing efforts.	Laboratory expertise regarding genotyping, TB testing, and knowledge of data security and confidentiality.
Corrections liaison	Danielle Heller	X	X	Coordinate with correctional programs as needed.	Knowledge of data security and confidentiality, knowledge of corrections, and corrections healthcare procedures.
Infection Control Assessment and Promotion Program (ICAP)	Rebecca Martinez		X	Support with infection control and guidance for health care facilities.	Knowledge of data and security and knowledge of training for support of infection control practices.
DHHS Lead Public Health Attorney	Teresa Hampton		X	Legal advice as needed.	Knowledge of legal procedures.

SECTION 3: Relevant Nebraska State Statutes

71-3601

Terms, defined.

For purposes of the Tuberculosis Detection and Prevention Act:

(1) Communicable Tuberculosis means Tuberculosis manifested by a laboratory report of sputum or other body fluid or excretion found to contain tubercle bacilli or by chest X-ray findings interpreted as active Tuberculosis by competent medical authority.

(2) Department means the Department of Health and Human Services Regulation and Licensure.

(3) Facility means a structure in which suitable isolation for Tuberculosis can be given and which is approved by the department for the detention of recalcitrant Tuberculosis persons.

(4) Local health officer means (a) the health director of a local public health department as defined in section 71-1626 or (b) the medical advisor to the board of health of a county, city, or village.

(5) Recalcitrant tuberculous person means a person affected with Tuberculosis in an active stage who by his or her conduct or mode of living endangers the health and well-being of other persons, by exposing them to Tuberculosis, and who refuses to accept adequate treatment; and

(6) State health officer means the Director of Regulation and Licensure, or the chief medical officer as described in section 81-3201.

71-3602

Rules, regulations, orders; violation; procedure.

When a person with communicable Tuberculosis violates the rules, regulations, or orders adopted and promulgated by the department and is thereby conducting himself or herself in such a way as to expose others to danger of infection, after having been ordered by the state health officer or a local health officer to comply, the state health officer or local health officer shall institute proceedings for commitment, returnable to the county court of the county in which the person resides or, if the person is a nonresident or has no permanent residence, in the county in which the person is found. Strictness of pleading is not required, and a general allegation that the public health requires commitment of the person is sufficient.

71-3603

Petition; hearing; notice; costs.

The county attorney of the county in which the proceedings are to be held as provided in section 71-3602 shall act for the department or local board of health. Either the state health officer or local health officer shall advise the county attorney in writing of the violation. Within three days of such notification, the county attorney shall file a petition with the county court.

Upon filing of the petition, the court shall set the matter for a hearing, which time shall be not less than five days nor more than ten days after filing. A copy of the petition together with a summons stating the time and place of hearing shall be served upon the person three days or more prior to the time set for the hearing.

Summons shall be served by the sheriff of the county in which the hearing is to be held and return thereof shall be made as in other civil cases.

The court costs incurred in proceedings under the Tuberculosis Detection and Prevention Act, including medical examinations required by order of the court but excluding examinations procured by the person named in the petition, shall be borne by the county in which the proceedings are held.

71-3604

Hearing; procedure; order.

Upon the hearing set in the order, the person named in the order shall have a right to be represented by counsel, to confront and cross-examine witnesses against him, and to have compulsory process for the securing of witnesses and evidence in his own behalf.

Upon a consideration of the petition and evidence, if the court finds that the person named in the petition has communicable Tuberculosis and conducts himself in such a way as to be a danger to the public health, an order shall be issued committing the person named to a facility and directing the sheriff to take him into custody and deliver him to the facility. If the court does not so find, the petition shall be dismissed. The cost of transporting such person to the facility shall be paid from county general funds.

71-3605

Appeal; procedure.

Any person aggrieved by a final decision in a contested case, whether such decision is affirmative or negative in form, is entitled to judicial review under the provisions of sections 25-2728 to 252738.

71-3606

Commitment; length of time.

Upon commitment, the person shall be confined until such time as the responsible attending physician determines that the patient no longer has communicable Tuberculosis or that his discharge will not endanger public health.

71-3607

Commitment; release; procedure.

Any time beyond sixty days after commitment, the person or any friend or relative believing that the patient no longer has communicable Tuberculosis or that his discharge will not endanger public health may institute proceedings by petition in the county court of the county wherein the confinement exists, whereupon the court shall set the matter down for a hearing before him within fifteen days, requiring the physician in attendance to show cause on a day certain why the patient should not be released. The court shall also require that the patient be allowed the right to be examined prior to the hearing by a physician of his own choice, if so desired and at his own expense. Thereafter all proceedings shall be conducted the same as on proceedings for commitment with the right of appeal by either party; PROVIDED, such petition for discharge shall not be brought or renewed more often than once every ninety days.

71-3608

Commitment; voluntary hospitalization.

No person having communicable Tuberculosis who in his or her home or elsewhere obeys the rules, regulations, and orders of the department for the control of Tuberculosis or who voluntarily accepts hospitalization or treatment in a health care facility which is licensed and approved for such use under the Health Care Facility Licensure Act by the department, or other location as approved by the Governor, and obeys the rules, regulations, and orders of the department for the control of communicable Tuberculosis shall be committed under the Tuberculosis Detection and Prevention Act.

71-3609

Commitment; medical or surgical treatment; consent required.

No person committed under the Tuberculosis Detection and Prevention Act shall be required to submit to medical or surgical treatment without his or her consent or, if incompetent, without the consent of his or her legal guardian, or, if a minor, without the consent of a parent or next of kin.

71-3610

Commitment; treatment; expenses; payment by state.

The expenses incurred in the care, maintenance, and treatment of patients committed under the Tuberculosis Detection and Prevention Act shall be paid from state funds appropriated to the Department of Health and Human Services Finance and Support for the purpose of entering into agreements to provide for the care, maintenance, and treatment of such patients and those other persons have communicable Tuberculosis who voluntarily agree to and accept care and treatment.

71-3611

Commitment: consent to leave hospital; violation; return; costs paid by county.

Any person committed under the Tuberculosis Detection and Prevention Act who leaves the facility without having been discharged by the attending physician or by court order shall be taken into custody and returned to the facility by the sheriff of any county where such person is found, upon an affidavit being filed with the sheriff by the administrator of the facility or duly authorized officer in charge thereof acting as the duly appointed agent and representative of the department in the matter. The costs of such transportation shall be paid from county general funds of the patient's county of residence. If the person is a nonresident of Nebraska or has no permanent residence, the costs shall be paid from county general funds of the county of commitment.

71-3612

Communicable Tuberculosis: examination required; expense; payment.

The state health officer and each local health officer shall use all available means to detect persons with communicable Tuberculosis in his or her jurisdiction. If he or she has reasonable grounds based upon medical science for believing that a person has communicable Tuberculosis and if this person refuses to submit to the examination necessary for determining the existence of communicable Tuberculosis, the state health officer or local health officer shall issue an order to the person to obtain the appropriate examination. Thereafter, if the person does not comply within seven days, the state health officer or local health officer may institute commitment procedures as described in sections 71-3601 to 71-3604, the purpose of commitment under this section being to determine whether the person has communicable Tuberculosis.

The costs of voluntary examination made upon request of the state health officer or local health officer and the cost of examination made upon order of the state health officer or local health officer shall be paid from county general funds of the person's county of residence. If the person is a nonresident or has no permanent residence, the costs shall be paid from the county general funds of the county of commitment. The costs of examination and maintenance while under commitment shall be paid from state funds appropriated to the department thereof. The costs of transportation under the commitment procedure for examination shall be paid from county general funds of the county of

residence. If the person is not a resident of Nebraska or has no permanent residence, they shall be paid from the county general funds of the county of commitment.

71-3613

Department; powers and duties.

The department shall have and may exercise the following powers and duties in its administration of the Tuberculosis Detection and Prevention Act:

(1) To adopt and promulgate rules and regulations relating to the care, maintenance, and treatment of patients committed under the Tuberculosis Detection and Prevention Act, and other persons having communicable Tuberculosis who voluntarily agree to and accept care and treatment on either an inpatient or an outpatient basis;

(2) To inspect and supervise to the extent necessary the facilities, operations, and administration of those health care facilities receiving support from the department for the purpose of providing care, treatment, or maintenance for persons infected with communicable Tuberculosis.

(3) To provide visiting nursing services to those persons having communicable Tuberculosis who are being treated on an outpatient basis.

(4) To adopt rules and regulations, and issue orders based thereon, relative to reports and statistics on Tuberculosis from counties and the care, treatment, and maintenance of persons having Tuberculosis, especially of those in the communicable or contagious stage thereof; and

(5) To set standards by rule and regulation for the types and level of medical care and treatment to be used by those health care facilities caring for tuberculous persons and to set standards by rule and regulation dealing with such matters as program standards, maximum and minimum costs and rates, administrative procedures to be followed and reports to be made, and arbitration by third parties.

71-3614

Cost of patient care; transportation; payment.

(1) When any person who has communicable or contagious Tuberculosis and who has relatives, friends, or a private or public agency or organization willing to undertake the obligation to support him or her or to aid in supporting him or her in any other state or country, the department may furnish him or her with the cost of transportation to such other state or country if it finds that the interest of the State of Nebraska and the welfare of such person will be promoted thereby. The expense of such transportation shall be paid by the department out of funds appropriated to it for the purpose of carrying out the Tuberculosis Detection and Prevention Act.

(2)No funds appropriated to the department for the purpose of carrying out the act shall be used for meeting the cost of the care, maintenance, or treatment of any person who has communicable tuberculosis, for directed health measures, or for transportation to another state or country, to the extent that such cost is covered by an insurer or other third-party payor or any other entity under obligation to such person by contract, policy, certificate, or any other means whatsoever. The department in no case shall expend any such funds to the extent that any such person is able to bear the cost of such care, maintenance, treatment, or transportation. The department shall determine the ability of a person to pay by consideration of the following factors: (a) The person's age, (b) the number of his or her dependents and their ages and physical condition, (c) the person's length of care, maintenance, or treatment, (d) his or her liabilities, and (3) his or her assets. Pursuant to the Administrative Procedure Act, the department shall adopt and promulgate rules and regulations for making the determinations required by this subsection.

SECTION 4: NE DHHS TB Program Staff and Division of Public Health Contributors

It is important to recognize that the policies and practices presented in the document will not address every situation for providers or community members. Therefore, clinical judgement must always be exercised by providers and if questions or concerns arise, please contact the Nebraska DHHS Tuberculosis Program. The TB Program can act as a health professionals' main source of information on

policies and procedures relating to tuberculosis. Moreover, this program will consult with the CDC and other medical experts, as needed for complex TB situations.

The Nebraska DHHS Tuberculosis Program staff can be reached using the information:

Division of Public Health—Health Promotion Unit
301 Centennial Mall South
P.O. Box 95026
Lincoln, NE 68509-5007
(f) 402.742.8359

Tuberculosis Program Specialist RN
Kristin Bertrang, RN, MSN
(p) 402.471.6441
(c)402-416-0821
(e) kristin.bertrang@nebraska.gov

Infectious Disease Prevention and Control Program Manager
Morgan Weitzel
(p) 402.471.2504
(c) 531.893.3243
(e) morgan.weitzel@nebraska.gov

Infectious Disease Data Manager
Shannon Lawrence
(p) 531.530.7256
(e) shannon.lawrence@nebraska.gov

Administrative Specialist
Jennifer Sayre
(e) jennifer.sayre@nebraska.gov

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