Tuberculosis/LTBI Cohort Review Policy

for Nevada Tuberculosis Control and Elimination Program
Nevada Division of Public and Behavioral Health

1.0 POLICY

By the direction of the Nevada Division of Public and Behavioral Health, Tuberculosis (TB) Elimination, Prevention and Control Program, all Tuberculosis programs that receive TB funding from the state from pass through grant funding from the Centers for Disease Control and Prevention (CDC) will participate in TB cohort reviews.

2.0 PURPOSE

The purpose of this policy is to ensure that all persons with active TB or LTBI under age five in Nevada receive appropriate evaluation and treatment; to track progress toward meeting local, state, and national program objectives; and to clarify the roles and responsibilities of local and state TB programs.

3.0 SCOPE

This policy covers common terms and abbreviations used in TB, as well as the processes related to conducting cohort reviews.

4.0 DEFINITIONS

Common Terms

Cohort – a group of cases counted from a specific jurisdiction over a defined period of time.

Cohort Review – the systematic review of the management of patients with TB disease/LTBI cases in children under the age of 5 and the contacts of both.

Contact – persons identified as having spent a significant amount of time with the index, which would allow transmission to occur.

Continuation Phase – the second part of TB disease treatment (usually after a 2 month initial phase) that has a variable duration (4 to 12 months) depending on response to initial phase treatment, co-morbidities, and site of disease involvement.

Index – the person with TB disease or LTBI if they are under five years of age.

Infectious Period – the time period during which a person with TB disease might have transmitted *M. tuberculosis* organisms to others. If smear positive, infectious period dates back 3 months from smear collection date and for smear negative disease, infectious period dates back 1 month from smear collection date. The end date of an infectious period is determined by the date that the person with TB disease was placed in airborne infection isolation (AII). Two weeks after a person has been in airborne infection isolation, has taken 2 weeks of anti-tubercular medicines, has had three consecutive negative sputum smears, and has a reduction in signs and/or symptoms along with a medical provider's decision the person is no longer infectious, may a person leave isolation.
(http://www.cdc.gov/tb/education/corecurr/pdf/chapter7.pdf)

Initial Phase – the first phase of TB treatment (usually 2 months) treated with 4 therapeutic anti-tubercular medicine.

Smear (AFB smear) – a laboratory technique for preparing a specimen so that bacteria can be visualized microscopically. The quantity of stained organisms predict infectiousness. The amount of bacteria seen is graded as: No AFB, Rare, or 1+ to 4+ AFB.

Common Abbreviations

AFB – Acid Fast Bacilli

BCG – Bacille Calmette-Guerin

CXR – Chest X-ray

DOT – Directly Observed Therapy

100% DOT – Doses observed all days of the week via DOT

EDN – Electronic Disease Notification

EMB - Ethambutol

IGRA – Immune Globulin Release Assay

INH - Isoniazid

LTBI – Latent Tuberculosis Infection

PZA - Pyrazinamide

QFT – QuantiFERON TB

RIF – Rifampin

RIPE – Rifampin, Isoniazid, Pyrazinamide, Ethambutol

SAT – Self Administered Treatment

S/SX – Signs and Symptoms

TST – Tuberculin Skin Test

Tx - Treatment

5.0 PROCEDURES

Cohort reviews will be conducted annually in each county and/or jurisdiction for all active TB cases and LTBI cases in children under the age of 5. Reviews should be conducted face-to-face and include State and Local TB Programs, State TB Laboratory and community healthcare providers.

Case Information Reported in a Cohort Review

- Patient demographics
- Case number
- Country of birth
- USA arrival (if applicable)
- Risk factors
- HIV status
- Smear and culture results
- Chest radiograph (CXR) results
- Drug susceptibility results
- Medication (initial and continuation phase)
- Therapy status (DOT, DOT and self-administered, completed therapy, currently taking meds)
- Treatment adherence and completion barriers
- Enablers and incentives used (gift cards, transportation compensation)
- Results of the source investigation (if the patient is a child)
- Genotyping
- Contact investigation
    - Number of contacts identified, evaluated, infected (with or without disease), started on treatment, completed treatment
    - Note: A contact investigation should also occur for active TB cases of which the case is a child, even if it is a recently arrived case where no source-case identification is possible. This is to ensure no other household or close contacts were also exposed and/or were late converters. NAC 441A.355, 3 states, *"The health authority shall evaluate for tuberculosis infection any contact of a case having active tuberculosis. A tuberculosis screening test must be administered to a contact residing in the same household as the case or other similarly close contact" (https://www.leg.state.nv.us/NAC/NAC-441A.html#NAC441ASec355).*

Participant Roles and Responsibilities

If available, the following participants should participate in the review process:

- LHA's TB Medical Providers, Case Managers and Supervisors
- LHA's Outreach/Contact Investigation Staff
- LHA's DOT Staff
- LHA's Community Providers (Infectious Disease, Pediatrics, Pulmonary, Infection Control/Employee Health Staff at healthcare facilities etc.)
- State TB Program Manager and support staff (Bio Stat, Data Analyst, Project Manager etc.)

State TB Program Manager

Prior to Cohort Review Presentation

- Ensure staff at all levels understand the reasons for cohort reviews and have the knowledge and skills needed to conduct a cohort review.
- Assist with cohort review training, when needed.

During Cohort Review Presentation

- Ask questions of clarification and make recommendations to ensure that all aspects of surveillance and case management adhere to state laws, funded scope of work, and CDC guidelines.

After Cohort Review Presentation

- Ensure all issues are addressed and make recommendations, when needed.
- Ensure that ongoing, follow-up staff education incorporates program strengths and weaknesses.

Local Health Authority TB Program Supervisor

Prior to Cohort Review Presentation

- Supervise and assist case managers and investigators in following protocols.
- Conduct case reviews with each staff member and periodic case conference meetings with the entire team.
- Coordinate and schedule a date and time for the cohort review.

After Cohort Review Presentation

- Follow-up with the team to obtain missing information, clarify details, and update any TB registry information, as noted in the cohort review.

Local Health Authority TB Program Case Manager

Prior to Cohort Review Presentation

- Follow all protocols for case management to ensure that patients adhere to treatment, comply with medical visits, and complete treatment.
- Follow all protocols for contact investigation to ensure that contacts are identified and evaluated, and that they complete treatment for LTBI, if appropriate.
- Participate in case review meetings and case conference meetings with the TB control team, as scheduled.
- Prepare a concise presentation of all cases.

After Cohort Review Presentation

- Follow up to obtain any missing information or clarify details that were noted during the cohort review.
- Update TB registry, as needed.
- Continue case management if a patient has not completed treatment and/or continue contact investigation activities until contacts who should start or complete LTBI treatment have done so.