

TUBERCULOSIS (TB) CASE MANAGEMENT/TEAM APPROACH

I. TITLE: Protocol for the case management of persons with suspected or confirmed active TB disease.

II. TYPE OF STANDARD: Service

III. OUTCOME: To ensure the completion of appropriate therapy, until cure, for all patients with active TB disease in the community. The effective utilization of the Case Management/Team Model will assist County Health Departments in ensuring this critical disease control outcome.

The objectives of TB Case Management are as follows:

- (1). To ensure a thorough and complete TB patient assessment.
- (2). To implement and coordinate interventions identified in a case management plan.
- (3). To ensure appropriate delegation of interventions to be implemented by the case management team.
- (4). To deliver continuous TB care by linking patients with appropriate service providers.
- (5). To ensure on-going evaluation of the case management plan in regard to patient treatment adherence and adjust the plan accordingly.
- (6). To implement the TB case management plan in an appropriate manner consistent with public health laws and regulations.

IV. PERSONNEL: Medical Doctor (M.D.), Doctor of Osteopathy (D.O.), Physicians Assistant (P.A.), Advanced Registered Nurse Practitioner (A.R.N.P.), Registered Nurse (R.N.), Licensed Practical Nurse (L.P.N.), Health Services Representative (H.S.R.)

Each discipline will perform activities within the constraints of their respective practice acts, job description and protocols.

V. COMPETENCIES: County Health Department TB care providers listed above, and others providing care for TB patients, must demonstrate knowledge of the basic principles and concepts related to the effective case management of all community patients with suspected or confirmed TB disease. Providers must also have a general understanding of the leadership role of public health nursing in TB case management, specifically the role(s) of the assigned nurse case manager. County Health Department TB care providers must also demonstrate knowledge of the other medical and psycho-social factors which can affect successful case management of TB patients and the potential contributions of the various members of a TB case management team.

VI. AREAS OF RESPONSIBILITY

The County Health Department (CHD) Director, Nursing Director, TB Program Director or designee will:

- A. Directly assign a CHD nurse as the case manager for each patient with suspected or confirmed TB reported within their respective health jurisdiction. A case manager must be assigned to all individual TB patients in the community, including patients under the direct medical care of non-health department health care providers.
- B. Direct this Nurse Case Manager to work in concert with other assigned case management team members to provide appropriate assessment, planning, intervention, evaluation and documentation of case management activities. The case management team may consist of any two or more of the personnel identified in [IV. Personnel], or other appropriate staff as assigned by the CHD Director, Nursing Director or designee.
- C. Provide supervision for the Nurse Case Manager and other case management team members, as appropriate, to ensure the implementation of effective case management practices.

1. Assessment of the TB Patient

For each assigned TB patient, the Nurse Case Manager will conduct or cause to be conducted an initial patient assessment and follow-up assessments, as needed. Assessments should be conducted in concert with other identified team members and should incorporate the following:

a. Medical Information

Review and document the following patient information:

- site of suspected or confirmed TB disease
- date of presentation
- symptomatology, including date(s) of onset
- chest x-ray results
- date and type of current medications
- laboratory results, including HIV testing
- overall treatment plan

Other medical information, which pertains to TB treatment history, other medical conditions and medications, as well as sources of medical care, should be collected and documented.

All patients with suspected or confirmed active TB disease should be considered for **Directly Observed Therapy (DOT)**. For more information concerning DOT assessments, protocols and services see *DOT, TB Technical Assistance Guidelines*.

b. Psycho-Social Information

For each assigned TB patient, the Nurse Case Manager will conduct or cause to be conducted a thorough assessment of the patient for psycho-social, cultural, linguistic, economic and environmental issues which may influence the patient's adherence to prescribed treatment plans or access to appropriate care.

- A home field visit should be made to assist in validating this assessment.
- Appropriate patient demographic information should be collected to assist in the completion of the required Report of Verified Case of TB (RVCT) form.

c. Epidemiological Information

For each assigned TB patient, the Nurse Case Manager will conduct or cause to be conducted an assessment of the potential for TB transmission from the patient to others in the community. The potential for transmission must be evaluated in order to determine the investigational priority for each assigned TB patient. The potential for transmission should be determined through an initial review of the following four factors:

- *Suspected or Confirmed Index Case Characteristics* – these may include but are not limited to site(s) of disease, type(s) and duration of symptoms, laboratory sputum AFB smear and culture results, chest x-ray results and HIV status.
- *Susceptibility of Contact Hosts* – what types of persons have presumably been exposed? Small children (<5 years of age) and persons who are immunosuppressed may be more susceptible to being TB infected, if exposed, and are at increased risk of quickly progressing to active TB disease, if infected.
- *Conducive Environment* – an assessment must be made of the potential for transmission among the various home, work and leisure environments frequented by the index case. For example, certain environments, such as those with overcrowding or poor ventilation may be more conducive to the transmission of TB.
- *Duration and Degree of Exposure* – as assessment of the duration and degree of exposure should be performed based on the three factors above.

The assessment by the Nurse Case Manager of each patient's medical, psycho-social and epidemiological characteristics will facilitate prioritizing contact investigations and as a result will more effectively utilize the limited public health resources available for TB control activities. This initial assessment does not constitute a complete TB contact investigation but provides a framework from which to initiate prioritized investigations. For more information related to essential TB contact and source case investigations, please consult *TB Contact and Source Case Investigations, TB Technical Assistance Guidelines*.

2. Planning For and Implementing TB Case Management

The Nurse Case Manager will develop or cause to be developed, and will implement a TB case management plan for each assigned patient. TB case management plans should incorporate:

- a. A pre-discharge plan for hospitalized TB patients to ensure that plans are in place for needed medical, nursing, and community-based follow-up services after discharge, including the provision of treatment services and Directly Observed Therapy (DOT), if appropriate.
- b. Coordination of ongoing care and services from all TB care providers, including physicians, other clinical care provider(s), health service representatives, social workers and others. This coordination should be provided for all TB patients, including those receiving direct medical care from non-health department care providers. The Nurse Case Manager is responsible, in concert with the treating physician, to plan and forecast expected patient medical evaluations, clinic visits, specimen collection and other services.
- c. Direct services and/or referrals for psycho-social needs, as appropriate. Services and referrals may include assistance with public/medical entitlement eligibility processes (i.e. WIC, Medicaid, SSI, temporary housing), HIV counseling and testing, as well as substance abuse counseling and treatment.
- d. Referrals and coordination of care for other medical conditions, particularly those which may interfere with or complicate patient adherence to TB treatment, as appropriate. This may include but is not limited to access to family planning services and coordination of HIV/AIDS medical care for the co-infected patient.
- e. Plans for patient education, including the provision of culturally and linguistically appropriate health educational materials for the patient, family members and other involved parties. To the extent possible, TB and health education materials and services should be commensurate with the educational level of the targeted consumer. The patient and/or the patient's legal guardian or patient's care giver will be provided a complete explanation of TB infection and disease, the need to adhere with the prescribed treatment plan, and the consequences of non-adherence with this treatment plan.
- f. The assessment of need for and the appropriate utilization of client incentives and enablers to enhance patient adherence with anti-TB medications and required medical follow-up. Incentives (e.g. food vouchers) and enablers (e.g. transportation assistance) should be utilized in conjunction with DOT services.

3. Evaluation

At least monthly, the Nurse Case Manager will re-evaluate the patients TB case management plan, and will revise this plan as necessary in consultation with case management team members and all others involved in the patients treatment care plan. Preferably, this consultation will take place through case management team meetings. The Nurse Case Manager will provide monthly up-dates and status reports concerning each assigned TB patient to his or her designated supervisor.

The following assessments will be included by the case management team in determining the need for patient care plan revisions:

- (1). Response to therapy as indicated by clinical improvement and sputum smear and culture conversion.
- (2). Indications of adverse drug reactions through patient interviews and appropriate laboratory and other testing; (i.e., liver function tests, basic audiometry, vision and color discrimination, etc.).
- (3). Patient adherence to the recommended treatment schedule through patient interviews, family interviews, if appropriate, and/or record review.
- (4). Effectiveness of the overall case management plan in order to change strategies as indicated.
- (5). Need for more restrictive measures if the patient is non-adherent with the treatment plan.

VII. Documentation

Document all appropriate information utilizing standardized **state** and/or **county** forms. Medical record documentation should follow standard, Subjective, Objective, Assessment, Plan, (SOAP) protocols, and should be documented immediately subsequent to each relevant, patient related activity or action.

VIII. Supportive References

American Thoracic Society. Control of Tuberculosis in the United States (DHHS Publication No. 633-001/20501). Washington D.C.: US Government Printing Office; 1995.

Daugherty, JS, Hutton, MD, & Simone, PM. Prevention and control of tuberculosis in the 1990's. *Nursing Clinics of North America*. 1993;44(3):599-611.

Frachel, RR. A new profession: The evolution of public health nursing. *Public Health Nursing*. 1988;5(2): 86-90.

Freudensberg, N. . A new role for community organizations in the prevention and control of tuberculosis. *Journal of Community Health*. 1995;20(1): 15-28.

Mullahy, CM. *The case manager's handbook*. Gaithersberg, MD: Aspen; 1995.

Stanhope, M.&Lancaser, J. Community health nursing: *Promoting health of aggregates, families, and individuals* (4th ed.). St. Louis: Mosby; 1996..

Wywialowski, E. *Managing client care*. St. Louis: Mosby; 1993..

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Zander, K. (Ed.). *The new definition*. South Natick, MA: The Center for Case Management; 1994.