TB Nurse Case Management Clinical Pathway

Purpose:

The TB Nurse case management clinical pathway (NCMCP) is a tool which provides a sequential list of elements expected to be completed during the care of a TB suspect/case. It is intended to assist all nurses who:

Would benefit from a simplified list of day by day components of TB nurse case management
Are generalists in Public Health Nursing (involved in all, or many, programs provided by your district)
Are new to TB nurse case management
Practice in districts with a low incidence of TB
Just prefer a reminder system to be sure all 'bases are covered"

The NCMCP should be used as a guide as you provide care and is **not part of the patient medical record**. The NCMCP is an adjunct document to the TB Service plan which is part of the medical record. This tool covers the major steps and not the details. It is meant to be simple to use, reduce missed opportunities, assist in organization of care, enhance TB Nurse case management training and most importantly, improve TB outcomes.

Instructions:

While self explanatory at first glance, there are some points that need to be made to increase the tool's usefulness.

1. In its print form, there are many underlined titles, words and citations. These are hyperlinks to the information or document that it refers to. If you would like to review a protocol or process or print a form, the NCMCP must be accessed electronically. You may want to download the tool onto your desktop for quick and easy access. You can access the resource two ways:
    a. Put your cursor on the underlined words then control/click and the document will open up for you to view.
    b. Right click the underlined words and in the drop down list select "open hyperlink"
2. This list has items that may not apply to your case. It should help as a reminder that a step needs to be thought about however, it may not apply to your case. For example:
    Initial Report box: 3rd statement is "Arrange to visit client while hospitalized". If the case is home, it is obvious this wouldn't apply. Another example would be in the
    Day 1 box: 7th statement "Place a TST or draw an Interferon gamma release assay" If a result of either of these tests is documented already, no repeat is needed. This would not apply.
3. Districts in the Commonwealth of Virginia use different processes for providing TB care. The process used to obtain a chest X-ray or medication and do lab work varies. Each row in the NCMCP tool is a core component of TB nurse case management and should be thought of as necessary. The "how to make it happen" methods are determined locally. If you are unsure or unaware of how to get something accomplished contact your nursing supervisor, district medical director or other recognized authority located in your district. Of course, if the state office can be of assistance in any way, never hesitate to call (804-864-7906).
4. Finally, the NCMCP does not have to be used at all if you prefer. Once again, this is not part of the medical record. It was created to help any nurse who believes they would benefit from it.

Under Revision 8/2017

TB Nurse Case Management Clinical Pathway

TB Nurse Case Management Directives	
Initial Report	Review information from the reporting source. Document on the TB Intake Sheet. Request medical record
	Estimate potential infectiousness (site of disease, bacteriology, symptoms). Provide guidance regarding isolation precautions if client is inpatient
	Arrange to visit client while hospitalized
	If hospitalized, begin discharge planning / If discharge is imminent ensure the TB Treatment/Discharge Plan has been completed before discharge
Day 1	Perform initial client interview to confirm client medical/psychosocial/ demographic information received on initial report
	Provide TB educational materials: Questions and Answers About TB (CDC), medications side effects and interactions
	Explain overview of treatment plan including need for monthly visits. Provide contact information for clinic and NCM
	Determine the need for a contact investigation/Elicit contact information if appropriate
	Obtain Authorization for disclosure of Protected Health Information and give client Notice of Privacy Practices
	Explain and obtain signature on the Patient Isolation Agreement
	Explain and obtain signature for Directly Observed Therapy Agreement
	Plan source for TB meds based on cost effectiveness/explain alternatives
	Check weight/Recalculate TB medication dosages "Treatment of Tuberculosis, 2003,p.5
	Place TST draw an Interferon Gamma Release Assay (IGRA) if not done
	Do baseline diagnostic testing: vision and hearing
	Do: LFT's, CBC, uric acid: Labcorp panels #332158 or #347692(with glucose) and, HgbA1c: Labcorp #001453
	Obtain CXR if recent CXR is not available
	Collect observed sputum specimen. Recommended sputum sample collection schedule. Provide sputum containers for collection over next two days or schedule an induction. Provide Instruction for how to collect sputum. (patient instructions) Induce if necessary
	Do HIV testing
	Arrange DOT with Outreach Worker
	Prepare the Directly observed therapy log
	If hospitalized, arrange for home assessment by TB Nurse Case Manager
	Ensure client has had a medical exam if not done to date
	Begin plan for interventions to address identified barriers to adherence. If housing need is anticipated access HIP Funds
	Customize Case/Suspect Tuberculosis Service Plan
Day 2	Prioritize contacts identified and initiate contact evaluations
	Obtain sputum specimen today if available. If unable, induce with order
	Continue DOT
Day 3	Review diagnostic tests results and share with treating clinician
	If PPD positive and /or AFB smear/MTD positive, share with the clinician
	Assess home environment for transmission potential and additional contacts

Under Revision 8/2017

TB Nurse Case Management Clinical Pathway

TB Nurse Case Management Directives	
Day 3 cont'd	Estimate the infectious period, Continue contact investigation efforts
	Ensure client has a medical exam if not done to date
	Read and record TST results
	Obtain sputum specimen day three. If unable, perform induction
	Continue DOT
Day 4	Obtain sputum specimen day 3, perform induction as needed. After 3 sputum are collected, next one is due in 2 weeks Recommended sputum sample collection schedule
	Continue contact investigation efforts
	Notify the DDP-TB surveillance staff of reported suspect/case
	IGRA results should be available
	Continue DOT
Within 1 week	Notify DDP-TB surveillance staff of suspect/case if not done already
	Identify high priority contacts and evaluate (TST or IGRA, CXR,sputum, medical exam)
	Discuss barriers for adherence and other client needs with ORW. Implement a plan to address
	If no sputa results received to date, contact the microbiology lab for results of smears and NAAT record on Bacteriology flow sheet
	Continue DOT
Week 2	Continue DOT
	Discuss option to change to intermittent regimen with treating clinician
	Diabetic clients only: perform serum drug level testing per VDH protocol
Week 3	Continue to collect three sputum at 7 – 10 day intervals per month for AFB smear and culture until culture conversion, Induce as needed You will continue until there are two consecutive negative cultures followed by no positive cultures
	Assure you have smear results for all bacteriology specimens collected to date
	Discuss option for change to intermittent therapy with treating clinician
	Continue DOT
Week 4	Monthly clinical assessment - RN or clinician
	Weight, visual acuity, if labs needed Labcorps panels #332158 or #347692(with glucose)
	Contact lab for most up to date results on AFB specimens (May take 8 weeks for culture results to be final)
	Collect sputum for AFB smear and culture. If smears have converted to negative plan to release the client from isolation. Must have 3 negative smears to return to congregate setting
	If client is slow to respond to treatment (smears not improving, no clinical improvement) re-evaluate adherence, consider serum drug level testing
	Ensure Priority contacts have begun window period treatment, if prescribed. MMWR Guidelines for the investigation of contacts of persons with infectious TB (2005) beginning on Pg17
	Assign ORW to locate newly identified contacts.

Under Revision 8/2017

TB Nurse Case Management Clinical Pathway

TB Nurse Case Management Directives	
cont'd Week 4	Fax the initial TB Contact Investigation Form (502) to 804-371-0248
	Ensure treating clinician has most recent lab result
	Ensure new orders, recommendations, or case management strategies are shared with the ORW.
	Continue DOT
Week 5 to Week 7	If final culture results have been available for >2 weeks, verify susceptibility results. If pan-sensitive discuss discontinuing Ethambutol (EMB) with the treating clinician
	Contact investigation – Ensure adherence to LTBI treatment for contacts on window period treatment or those with LTBI. Consult with ORW to locate those who are non-adherent. Continue with evaluations on newly identified contacts, if any
	Weight, visual acuity, if labs were not drawn 1 week prior do now, if needed: Labcorps panels #332158 or #347692(with glucose)
	Repeat CXR – request comparison with prior imaging.
Week 8	**This is a critical juncture in case management.** Several activities occur to determine case confirmation, treatment changes. Additionally, this is a common time for new adherence issues to arise. Most clients are now smear negative, no longer in isolation.
	Monthly clinical assessment - RN or clinician
	If clinical improvement is not evident by 60 days of treatment, Discuss with treating clinician: Evaluate adherence, Serum drug levels may be considered per protocol
	Calculate the number of doses taken during the initial phase **Do not stop PZA** unless you have carefully counted doses. If too little PZA is ingested, treatment will have to be extended. When 40 doses of Pyrazinamide (PZA) have been taken, discuss discontinuing PZA with the treating physician
	Weight adjust dosage of TB drugs if needed
	Discuss change to intermittent regimen with treating clinician. **Thrice weekly only for HIV positive patient**
	Labs, if needed: Labcorps panels #332158 or #347692(with glucose)
	Continue DOT - Prepare new DOT sheet with new dosages. Discuss changes with ORW
	Verify if suspect should or should not be counted as a case of TB from "TIMS user guide" The clinician will base the decision to stop or continue treatment using historical and current information. (sputum, imaging, clinical improvement, etc.)
	This is a critical juncture in contact investigations. 2nd round testing is due 10 weeks after a contacts last date of exposure. Assure treatment initiation for infected contacts and continue follow-up and reminder efforts.
	Ensure new orders, recommendations, or case management strategies are shared with the ORW
Week 9 to Week 11	Continue to collect clusters of sputum for AFB smear and culture until culture Conversion every 7 – 10 days (3 per month)
	Obtain prescriptions for change of dosages if needed for intermittent therapy
	Continue DOT
	Contact investigation – continue efforts to assure 2nd round of testing is being performed Evaluate results to determine need to expand investigation to next lower priority level.

Under Revision 8/2017

TB Nurse Case Management Clinical Pathway

TB Nurse Case Management Directives	
cont'd Week 9 to 11	Contacts on treatment: employ strategies to improve treatment initiation, adherence and completion
Week 12	Monthly clinic visit/home – RN or clinician
	Repeat CXR if not done at prior visit at 8 weeks
	Labs, if needed: Labcorps panels #332158 or #347692(with glucose)
	Vision: if taking EMB. No longer needed if EMB has been discontinued,
	Contact investigation – All initial contacts should have been completely evaluated. Contacts identified later should have had their first TST with those identified as high priority placed on window period treatment
	Ensure new orders, recommendations, or case management strategies are shared with the ORW
	Ensure treating clinician has most recent lab results
Week 13 to Week 15	Contact investigation – continue activities
	Continue DOT
	Contact investigation – Fax the 2nd report: TB Contact Investigation Form (502), with updated information added to intial report faxed previously to 804-371-0248
Week 16	Monthly clinic visit/home – RN or clinician
	Labs, if needed: Labcorps panels #332158 or #347692(with glucose)
	Vision: if taking EMB. No longer needed if EMB has been discontinued,
	Contact investigation – Fax the 2nd report: TB Contact Investigation Form (502), with updated information added to intial report faxed previously to 804-371-0248
	Ensure new orders, recommendations, or case management strategies are shared with the ORW.
	Ensure treating clinician has most recent lab results
Week 17 to Week 19	Continue DOT
	Contact investigation – continue activities
Week 20	Monthly clinic visit/home – RN or clinician
	Labs, if needed: Labcorps panels #332158 or #347692(with glucose)
	Contact investigation – continue activities, montoring of contact adherence to treatment
	Continue DOT
	Ensure new orders, recommendations, or case management strategies are shared with the ORW.
	Ensure treating clinician has most recent lab results
Week 21 to Week 23	Contact investigation – continue activities, montoring of contact adherence to treatment
	Ensure patient is scheduled to see clinician as treatment comes to completion
	NCM responsibility: Calculate total dosages taken during the continuation phase to ensure number of doses required have been ingested
Week 24–26	Final clinic visit with clinician. The treating clinician wil confirm treatment completion with assistance from the NCM
	Continue DOT until required doses have been ingested. Notify ORW of remaining doses

Under Revision 8/2017

TB Nurse Case Management Directives	
cont'd Week 24 to Week 26	needed and not to discontinue treatment unless confirmed by the NCM or clinician
	Final CXR may be requested for future reference
	Complete the certificate of completion of treatment
	Provide patient with health department contact information and needed information for their personal medical records
	If clinician request, schedule follow-up appointment (not required)

Treatment plans may be extended beyond 26 weeks for several reasons. For example:

Less than 40 doses of PZA completed
Delayed culture conversion
Treatment interruptions
Drug resistance

When this occurs, continue 'week 20' activities for the remaining weeks. Follow week 24 – 26 recommendations as you approach completion.

Call VDH TB Control office
if assistance is needed at any time
804-864-7906

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