

Tuberculosis Contact Investigation Form Instructions

Background:

On December 16, 2005, the National Tuberculosis Controllers Association and CDC published in Morbidity and Mortality Weekly Report (MMWR) the updated “Guidelines for the Investigation of Contacts of Persons with Infectious Tuberculosis”. These national guidelines for the investigation, diagnostic evaluation, and medical treatment of tuberculosis (TB) contacts had not been updated since 1976 when the first brief guidelines were published.

The priority of a contact investigation should be raised to the same level as the follow-up of a TB case. Because resources involving both staff and funding for contact investigation are often limited, TB programs need to focus their resources on finding exposed persons who are more likely to be infected or to become ill with TB disease. Thus, TB programs must decide which contact investigations should be assigned a higher priority and which contacts should be evaluated first.

2009 TB Contact Investigation Objectives for Washington State

The following 2009 TB contact investigation objectives for Washington State are based upon state surveillance and cohort data:

- Contacts will be identified for at least 90% of newly reported sputum acid-fast bacilli (AFB) smear positive TB cases
- At least 75% of contacts to sputum AFB smear positive TB cases will be evaluated for infection and disease
- At least 70% of infected contacts who are started on treatment for latent TB infection (LTBI) will complete therapy

Priority of Exposed Contacts:

Contacts are classified into three groups according to the priority of their need for follow-up. (page 7, table 2 – Guidelines for estimating the beginning of the *period of infectiousness of persons with tuberculosis (TB), by index case characteristic) (*3 months prior to symptom onset or start of treatment.)

Remember: No matter what their category, always prioritize the follow up of contacts. First address the persons most at risk for becoming infected or for developing TB disease (children, immune suppressed, HIV positive, underlying medical conditions, etc.)

Category 1.

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- Contacts exposed to a person with acid-fast bacilli (AFB) sputum smear positive or cavitory chest x-ray

Category 2.

- Contacts exposed to a person with AFB sputum smear negative TB
- Contacts exposed to a person suspected of having TB disease with an abnormal chest x-ray that is consistent with TB disease.

Category 3.

- Contacts exposed to a person with suspected TB with an abnormal chest x-ray that is not consistent with TB disease

Exposure Category 1:

The LHJ should focus on the highest priority contacts which are those exposed to persons with acid-fast bacilli (AFB) sputum smear positive or cavitory tuberculosis.

Contacts to these cases are categorized as follows:

(High) = Case is sputum smear positive or cavitory chest x-ray and contact is:

1. a household member
2. less than 5 years of age
3. has medical risk factors (i.e.; HIV)
4. was exposed during a medical procedure (i.e. bronchoscopy)
5. was exposed in a congregate setting
6. exceeds duration environment limits

(Medium) = Case is sputum smear positive or cavitory chest x-ray and contact is:

1. 5 - 15 years of age
2. exceeds duration environment limits

(Low) = Case is sputum smear positive or cavitory chest x-ray and contact is:

1. All other contacts that do not fall under the preceding categories (e.g. individual visiting outdoors once or twice a week during the infectious period)

Exposure Category 2:

The LHJ should provide follow up on these contacts according to resource availability (time, staff, etc.)

- those exposed to persons with acid-fast bacilli (AFB) sputum smear negative tuberculosis or,
- those exposed to persons suspected of having TB disease due to an abnormal chest x-ray that is consistent with TB disease.

Contacts to these cases are categorized as follows:

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(High) = Case is sputum smear negative and contact is:

1. less than 5 years of age
2. has medical risk factors (i.e. HIV)
3. was exposed during a medical procedure (i.e. bronchoscopy)

(Medium) = Case is sputum smear negative and contact is:

1. a household member
2. was exposed in a congregate setting
3. exceeds duration environment limits

(Low) = Case is sputum smear negative and contact is:

1. All other contacts that do not fall under the preceding categories

Exposure Category 3:

The LHJ should provide follow up on these contacts according to resource availability (time, staff, etc.)

- Those exposed to persons with suspected tuberculosis (TB) with abnormal chest x-rays not consistent with TB disease

Contacts to these cases are categorized as follows:

(Medium) = Case x-ray is not consistent with TB disease and contact is:

1. household contact
2. less than 5 years of age
3. has medical risk factors
4. was exposed during a medical procedure

(Low) = Case x-ray is not consistent with TB disease and contact is:

1. All other contacts

Guidelines for the Investigation of Contacts of Persons with Infectious Tuberculosis: MMWR 2005

The following information and guidelines have been developed to assist in the prioritization of contact investigations and are contained in the publication:

- Decision to initiate a tuberculosis (TB) contact investigation (page 5, figure 1)
- Prioritization of contacts exposed to persons with acid-fast bacilli (AFB) sputum smear positive or cavitary TB cases (page 12, figure 2)
- Priority assignments for contacts exposed to persons with AFB sputum smear negative TB cases (page 13, figure 3)

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- Prioritization of contacts exposed to persons with suspected TB cases with abnormal chest radiographs not consistent with TB disease (page 14, figure 4)
- Evaluation, treatment and follow-up of TB contacts aged <5 years (page 15, figure 5)
- Evaluation, treatment and follow-up of immunocompromised contacts (page 16, figure 6)
- Evaluation, treatment, and follow-up of immunocompetent adults and children aged ≥ 5 years (high- and medium-priority contacts) (page 17, figure 7)
- Evaluation, treatment, and follow-up of low-priority contacts (page 18, figure 8)
- Evaluation, treatment, and follow-up of contacts with a documented previously positive tuberculin skin test (page 19, figure 9)

In addition, the new guidelines provide:

- Time frame for the first interview of an infectious person: within 24 hours of the date reported (page 7, "Interviewing the Patient")
- Estimating the beginning of the period of infectiousness of persons with TB, by index case characteristic (page 7, table 2)
- Time frames for initial follow-up of contacts of persons exposed to TB (page 9, table 3) (*note: the correct time frame for follow-up of a high-priority contact should read "3" days, not "7" days*)

The Washington State Department of Health Contact Investigation Form

The WS DOH Contact Investigation Form was developed to collect information regarding contacts, prioritized according to risk status, as a compliment to the DOH contact database. Information will be used for analysis and TB control activities and will be reported to LHJs by DOH.

Directions for entering data into the Contact Investigation Form (Examples of completed forms will be provided)

Top right of the form

- **Submitted by:** Enter the name of the Local Health Jurisdiction (LHJ) person submitting the report
- **Date:** Enter the date the report was submitted to the DOH TB Program

Case

- **Name:** Enter the last name, first name, middle initial, and any other names the case uses (if any)
- **DOB:** Enter the date of birth
- **Age:** Enter the age of the case at the time the initial TB Case Report was made

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- **RVCT (Report of Verified Case of Tuberculosis):** The DOH TB Program assigns an RVCT case number when a case or suspected case is reported to DOH and will provide this number to the LHJ on a weekly basis
- **Morbidity Date:** Date the countable case is reported to CDC. The DOH TB Program will provide this date to the LHJ on a weekly basis. (This date will not necessarily be within the same week as the report was received by DOH.)
- **County:** County in which the case or suspected case resides at the time it is reported to the DOH TB Program
- **Comments:** e.g. outbreak; epi-linked
- **Type (of TB):** Check either “Pulmonary” or “Non Pulmonary”
- **Chest X-Ray (CXR) Results:** Check either “Cavitary” or “Noncavitary”

Contact

Priority of Exposed Contact

Check **one** of the following:

- **1. Smear positive or cavitary chest x-ray** (contacts exposed to a person with acid-fast bacilli {AFB} sputum smear positive or cavitary chest x-ray) (page 12, figure 2)
- **2. Smear negative** (contacts exposed to a person with AFB sputum smear negative TB) (page 13, figure 3)
- **3. Suspect case** (contacts exposed to a person suspected of having TB disease, with an abnormal chest x-ray that is consistent with TB disease) (page 13, figure 3)

Contact Investigation

The following data is also placed on the Cohort Review Report, page 2, “Contacts”

- **Date Identified:** Date the first contact was identified; usually the date the case is first interviewed
- **Date Interviewed:** Date the first contact was interviewed
- **Date of Evaluation:** a) Date the first contact was evaluated with an initial TST or QuantiFERON-TB Gold (QFT-G) test:
 - 1) *if TST or QFT-G negative*, enter the date the TST was read or the QFT-G blood specimen was drawn, **OR**
 - 2) *if TST or QFT-G positive*, enter the date the CXR was taken, **OR**
 - 3) *if sputum was ordered after the CXR was read*, enter the date the first sputum specimen was collected, **OR**
 - 4) *if documentation exists for prior LTBI or diagnosis and treatment of TB disease*, complete a symptom check on the contact, and enter the date of the symptom check, even if no further tests and exams are indicated

Time frame for interview of an infectious TB case (sputum smear positive or cavitary disease) (page 7, “Interviewing the Patient”)

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- The first interview should be conducted on the first business day that a report is received of an infectious case of TB. The interview should be in person (i.e. face-to-face) in the hospital, the TB clinic, the patient's home, or a convenient location that accommodates the patient's right to privacy.
- Non-infectious TB cases should be interviewed within 3 days of the report of the case

Time frames for initial follow-up of persons exposed to tuberculosis (page 9, table 3)

- **High-priority contact of a sputum smear positive or cavitary case:** The initial encounter should occur within 3 business days from the date the person is listed as a contact (page 13, "Tuberculin Skin Testing"); (*note: page 9, table 3: the correct time frame for follow-up of a high-priority contact should read "3" days, not "7" days*). Appropriate medical evaluations should be completed within 5 days of the initial encounter (page 9, table 3)
- **High-priority contact of a sputum smear negative case:** The initial encounter should occur within 7 business days from the date the person is listed as a contact (page 13). Appropriate medical evaluations should be completed within 10 days of the initial encounter (page 9, table 3)
- **Medium-priority contact:** The initial encounter should occur within 14 business days of the date the person is listed as a contact; Appropriate medical evaluations should be completed within 10 days of the initial encounter (page 9, table 3)
- **Low-priority contact:** any contacts not classified as high- or medium-priority (Page 14, first column)

Contact Risk Factors

Enter either **Y** (yes) or **N** (no) for each risk factor after each contact's name. (see sample form) More than one risk factor may apply to an individual contact.

Listing of Contacts by Risk, Follow-up Performed and Results

- **Full Name of Contact:** Enter both first and last name of the contact
- **Date of Birth:** Enter the full date of birth. (The contact's name cannot be entered into the DOH Contact Database without the date of birth)
- **Exposure category:** Each contact needs to be identified as H (high), M (medium) or L (low) exposure risk. (*Refer to the Contact Investigation Data Dictionary for Category Definitions. Please note that an individual contact's categories may vary, even within the same household, depending upon the risk factors of that specific contact.*)
- **Household:** Is the contact a member of the household in which the TB case resides? Mark Y (yes) or N (no)
- **<5 years:** Is the contact under 5 years of age? Mark Y (yes) or N (no)
- **Med risk:** Does the contact have a medical risk factor, i.e. immunosuppression? Mark Y (yes) or N (no)

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- **Medical exposure:** Did the exposure to TB occur during a medical procedure, i.e. emergency room or bronchoscopy during which the contact did not use an N-95 respirator? Mark Y (yes) or N (no)
- **Cong Set:** Did the exposure to TB occur in a congregate setting, i.e. nursing home, jail? Mark Y (yes) or N (no)
- **Enviro limits:** Did the exposure exceed the duration of environmental limits? (Page 10, "Exposure") Mark Y (yes) or N (no). Evaluate room size, air exchange, etc.
- **5-15 years:** Is the contact 5-15 years of age? Mark Y (yes) or N (no)

CXR-prev TB:

Has the contact had a prior chest x-ray consistent with TB? Mark Y (yes) or N (no)

TST Results/QFT-G Results

Prior Positive: enter one of the following

- "1" - if follow-up is needed for a contact who had a prior positive TST or QFT-G but who did not initiate or complete a course of treatment
- "2" - if follow-up is not needed for a contact who had a prior positive TST or QFT-G and completed treatment, OR who had TB disease and completed treatment, OR who is asymptomatic and declines treatment for LTBI.

Current TST or QFT-G: enter the date the TST was read with the results in mm, OR the date the blood specimen was drawn AND "1" if positive, "2" if negative, or "3" if indeterminate.

8-10 week retest: enter the date the TST was read with the results in mm, OR the date the blood specimen was drawn AND "1" if positive, "2" if negative, or "3" if indeterminate.

Chest X-Ray

Enter the date of the CXR and check either "normal" or "abnormal"

Treatment of LTBI

Check "yes", enter date meds started, and list meds given, OR Check "no" and enter the reason treatment for LTBI was not started

Completion Date or Discontinued Due to:

Enter the following letters according to the list at the bottom of the TB Contact Investigation form:

- C** (Completed treatment)
- D** (Died during treatment)

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- L (Lost)
- M (Moved & Records Referred)
- P (Provider Discontinued Meds)
- R (Refused to continue)
- T (TB Disease Diagnosed)

A nine month regimen of Isoniazid (INH) is the recommended treatment for Latent TB Infection (LTBI) in all persons, Tuberculosis Contact Investigation Form Instructions 2007 Rev 1 including those who have evidence of prior TB disease on x-ray or who are HIV positive. A four-month regimen of Rifampin (RIF) is the second treatment of choice. (Targeted Tuberculin Testing and Treatment of LTBI. MMWR 2000. page 31, table 10)

Contact Investigation Report

First report: submit to DOH within 2 weeks

Second report: submit to DOH within 10 weeks

Third report: submit completion of contact investigation (excluding completed dates for contacts on treatment for LTBI) within 4 months

Final report: submit to DOH after the contacts have completed treatment for LTBI (INH – 9 months) or (Rifampin 4 months)

Resources:

CDC. Guidelines for the investigation of contacts of persons with infectious tuberculosis: recommendations from the National Tuberculosis Controllers Association and CDC 2005.

CDC. Targeted tuberculin testing and treatment of latent tuberculosis infection. MMWR 2000.

Washington State Department of Health Tuberculosis Program website:
www.doh.wa.gov/cfh/tb

CDC education and training materials may be viewed and downloaded at
<http://www.cdc.gov/tb>

TB education and training resources: <http://www.findtbresources.org>

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