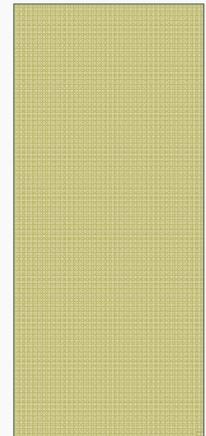


CONTACT INVESTIGATION

LANA JONES, MPH
CONTACT INVESTIGATION COORDINATOR
DEPARTMENT OF STATE HEALTH SERVICES



DECIDING TO INITIATE A CONTACT INVESTIGATION

Index Case

- Anatomical Site of Disease

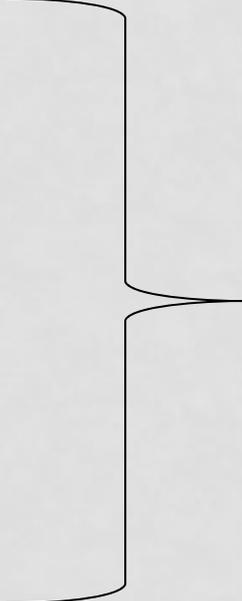
- Pulmonary
- Laryngeal

- Bacteriology

- Positive smear or culture

- Radiographic Findings

- Lung cavities



Increase
likelihood of
infectiousness

DETERMINING TRANSMISSION FACTORS

Index Case

- Behaviors that increase aerosolization of respiratory secretions
 - Cough frequency and severity are not predictive of contagiousness
 - Singing is associated with TB transmission
 - Sociability of the index case, increased number of contacts

DETERMINING TRANSMISSION FACTORS

Index Case

- Age
 - Transmission from children aged <10 years is unusual but has been reported
 - Disease in children calls for source case investigation
- HIV status
 - With pulmonary or laryngeal disease, are as contagious as those without HIV infection
- Administration of Effective Treatment
 - TB patients rapidly become less contagious after starting effective chemotherapy but exact rate of decrease cannot be predicted

DECIDING TO INITIATE A CONTACT INVESTIGATION

Index Case

- Consider if the patient:
 - Has pulmonary, laryngeal or pleural TB
 - Smear positive: highest priority
 - Cavitory chest radiograph
 - Positive result from an approved NAA test
- Generally do not consider if:
 - Suspected TB disease and minimal findings in support of a diagnosis of pulmonary TB
 - Exceptions can be justified during outbreak investigations, especially when vulnerable or susceptible contacts are identified or during a source-case investigation

CI PLAN

- **Contact Investigation Plan**



- The investigation plan starts with information gathered during index patient interviews and site visits. It should include a registry of the contacts, their assigned priorities and a written timeline. The timeline sets expectations for monitoring the progress of the investigation, and it assists the local health jurisdiction TB Program staff in informing public health officials about whether additional resources are needed for finding, evaluating and treating the high- and medium-priority contacts.



- The plan is a work in progress and should be revised if additional information indicates a need to expand a contact investigation. It is part of the permanent record of the overall investigation available for later review and program evaluation.

INVESTIGATING THE INDEX PATIENT

- Pre-interview phase
 - Collect background information about the patient and the circumstances of the illness
 - Review the medical record
 - Speak to physician or case manager
 - Match patient's name to prior TB registries
 - Gather demographic information, chemotherapy regimen and concurrent medical conditions
 - Determine preferred language spoken

DETERMINING THE INFECTIOUS PERIOD

- Three months before the onset of first symptom
- Focuses investigation on contacts most likely to be at risk of infection
- A patient (or associate) might be aware of protracted illness (in extreme cases >1 year)
 - Not uncommon for TB to go undiagnosed or misdiagnosed for several months

DETERMINING THE INFECTIOUS PERIOD

- Closing the infectious period:
 - Effective treatment for ≥ 2 weeks
 - Diminished symptoms
 - Mycobacteriologic response (decrease in grade of sputum smear positivity)
 - Patients returning to congregate living setting should have 3 consecutive negative AFB smear results
- Extending the infectious period:
 - MDR-TB extends infectiousness if the treatment regimen is ineffective
 - Patients with signs of extended infectiousness should be continually reassessed for recent contacts

INTERVIEWING THE PATIENT

- 1st interview should be within 1 business day of reporting infectious persons and <3 business days for others
 - Face to face in the hospital, TB clinic, home
- Multiple interviews are recommended
 - 2nd interview 1-2 weeks after 1st
- Establish rapport and respect, assure privacy
- Gather information regarding transmission settings
 - Ask specifically about congregate settings

**Texas Department of State Health Services
Contact Investigation Worksheet**



Name: _____ DOB: ___/___/___ SSN: ___/___/___
 Patient's Home Phone: () _____ - _____ Other Phone: () _____ - _____
 Bacteriology results: AFB smear _____ Culture _____ Disease site: _____
 Drug Start Date: ___/___/___ DOT Start Date: ___/___/___
 If asymptomatic, date of 1st (+) bacteriology ___/___/___
 or date of 1st chest x-ray suggestive of TB disease: ___/___/___
Circle all symptoms that apply: Date of 1st symptoms: ___/___/___
 Fever Chills Night Sweats Wt. loss>10% Cough Productive Cough Other: _____
 Estimated start date for infectious period _____

Case or Suspect Interview
 Place of Initial Interview _____ Date of Interview: ___/___/___
 Interviewed by: _____
 Interpretation by: _____ Source of Interpreter _____
 Place of Additional Interview _____ Date of Interview: ___/___/___
 Interviewed by: _____ Interpretation by: _____
 Date of Home Visit: ___/___/___ Interviewed by: _____
 Interpretation by: _____ Source of Interpreter _____

Congregate Setting Administrator Interview
 Date of Site Visit: ___/___/___ Place of Site Visit _____
 Person Interviewed _____ Interviewed by: _____ Interpretation by: _____

I. HOME AND FAMILY

Complete this section for each address where the client has lived during the 6 months prior to starting TB medication. Begin with current address and work your way backwards.

Physical Address:	Apt #	City	Zip
Mailing Address:			
Length of time at current address	Date Moved In		
Other addresses in last 5 years	Date Moved In	Date Moved Out	

With whom do you live? Alone With Others		How many people live at this address (excluding client)?	
How many children live in the home?		Ages 0-5:	Ages 6-14:
Enter name, approximate age, relationship to patient, and exposure risk of persons who reside at the above address. Circle Exposure Setting: 1 Size of a car; 2 Size of a bedroom; 3 Size of a house; 4 Size larger than a house Circle Exposure Time >6 hr/wk Yes No			
		Setting 1 2 3 4 >6 hr/wk Y N	
		Setting 1 2 3 4 >6 hr/wk Y N	
		Setting 1 2 3 4 >6 hr/wk Y N	
		Setting 1 2 3 4 >6 hr/wk Y N	
		Setting 1 2 3 4 >6 hr/wk Y N	
		Setting 1 2 3 4 >6 hr/wk Y N	
		Setting 1 2 3 4 >6 hr/wk Y N	
		Setting 1 2 3 4 >6 hr/wk Y N	
Have you ever been married? Yes No If yes, how many times?		Do you have a boyfriend/girlfriend/partner? Yes No	
Enter name(s) of spouse, boy/girlfriend(s), partner(s), if at risk of exposure and not household members.			
		Setting 1 2 3 4 >6 hr/wk Y N	
		Setting 1 2 3 4 >6 hr/wk Y N	
How many children do you have who do not live at home?		Enter names if at risk of exposure.	
		Setting 1 2 3 4 >6 hr/wk Y N	
		Setting 1 2 3 4 >6 hr/wk Y N	
How many people lived in the house during the past six months who do not live with you now? _____ Enter names below, of people who no longer live in the home:			
		Setting 1 2 3 4 >6 hr/wk Y N	
		Setting 1 2 3 4 >6 hr/wk Y N	
		Setting 1 2 3 4 >6 hr/wk Y N	
How many people visited your home and stayed overnight during the past 6 months? _____ (This could have been for holidays, birthdays, special events, etc.) Enter names below:			
		Setting 1 2 3 4 >6 hr/wk Y N	
		Setting 1 2 3 4 >6 hr/wk Y N	
		Setting 1 2 3 4 >6 hr/wk Y N	
		Setting 1 2 3 4 >6 hr/wk Y N	

Does anyone visit you or another member of your household more than 2-3 times per week? Yes No (Stays part of day, but does not stay overnight?) Enter names below:	
	Setting 1 2 3 4 >6 hr/wk Y N
	Setting 1 2 3 4 >6 hr/wk Y N
	Setting 1 2 3 4 >6 hr/wk Y N
How many relatives do you see on a regular basis?	How often do you see them each week?
In what group activities do you participate? Other social activities:	Choir Church Group Cards Dominos Bingo Number of group activities:
How many children receive childcare in your home?	How often is each child cared for?
When did you or another household member last provide care services in your home?	
Enter names of children who receive child care services (baby sitting) in the home:	
	Setting 1 2 3 4 >6 hr/wk Y N
	Setting 1 2 3 4 >6 hr/wk Y N
	Setting 1 2 3 4 >6 hr/wk Y N
	Setting 1 2 3 4 >6 hr/wk Y N
	Setting 1 2 3 4 >6 hr/wk Y N
	Setting 1 2 3 4 >6 hr/wk Y N
How many of your children attend day care centers?	
Who else spends at least 6-8 hours per week with you? No one Other people Enter names below:	
	Setting 1 2 3 4 >6 hr/wk Y N
	Setting 1 2 3 4 >6 hr/wk Y N
	Setting 1 2 3 4 >6 hr/wk Y N
	Setting 1 2 3 4 >6 hr/wk Y N
With whom do you eat your meals? Alone With Others	
Have you been around other relatives during the last 6 months, who have not already been named? (This could have been for holiday, reunions, etc.) Enter names below:	
	Setting 1 2 3 4 >6 hr/wk Y N
	Setting 1 2 3 4 >6 hr/wk Y N
When was the last family gathering or reunion? Date: / / None	
When was the last time you went on vacation or out of town? Date: / / What type of transportation was used? _____ Where did you stay? _____	
Whom did you visit? / _____	When did you return? Date: ____/____ (Or approximate)
How do you spend your time when you are not working? _____ With whom?	

How many children are you in contact with at work? Enter names below:	Setting 1 2 3 4 >6 hr/wk Y N
	Setting 1 2 3 4 >6 hr/wk Y N
How many coworkers do you spend 6-8 hours with per week? (Who have not already been named.) Enter names below:	Setting 1 2 3 4 >6 hr/wk Y N
	Setting 1 2 3 4 >6 hr/wk Y N
	Setting 1 2 3 4 >6 hr/wk Y N
Have you been out sick from work? Yes No If yes, how often? When? Date (s):	
Comments:	

III. SCHOOL

Complete this section for each school client has attended during the 6 months prior to starting TB medication. Begin with the most current school and work your way backwards.

Name of School: _____
Location/Address: _____
Grade: _____ Teacher/Homeroom Teacher: _____
Length of time at school: From ___/___/___ To ___/___/___
What transportation do you use to get to and from school? How long is the ride? If school bus, how many other riders? If carpool, how many other riders? List names below.
Do you move from class to class during the day or remain in one classroom? (If client moves from class to class, obtain class schedule and record in Notes and Comments Section.)
Whom do you spend time with at school? Enter names below: Circle Exposure Setting: 1 Size of a car; 2 Size of a bedroom; 3 Size of a house; 4 Size larger than a house Circle Exposure Time >6 hr/wk Yes No
Setting 1 2 3 4 >6 hr/wk Y N
Setting 1 2 3 4 >6 hr/wk Y N
Setting 1 2 3 4 >6 hr/wk Y N
Setting 1 2 3 4 >6 hr/wk Y N
Do you participate in any school groups/activities? Yes No What? _____ How often? _____ With whom? _____ How do you spend your time after school?
Is skin testing of classmates indicated? Yes No Comments:

IV. OTHER SITES OF POTENTIAL TRANSMISSION

Complete this section for each address where the client has spent significant amount of time on a regular basis during the infectious period.

List clinic or medical office visits during the infectious period:

Name of clinic/office _____ Date(s) _____

Name of clinic/office _____ Date(s) _____

Did you visit an emergency room in the last three months? _____ Name of Hospital _____

If yes, Date of Visit ____/____/____ How long did you stay in the ER waiting room? _____

Did you spend at least one night in a hospital bed? _____ Name of Hospital _____

If yes, Date of Admission ____/____/____ Date of Discharge ____/____/____

Did another patient share your hospital room? _____ If yes, Name of patient _____

Did the hospital workers wear a mask when they entered your room? _____

Did visitors wear a mask when they entered your room? _____

Name of Other Sites of Potential Transmission:	Address of Other Sites of Potential Transmission
a. _____	a. _____
b. _____	b. _____

What transportation do you use to get to and from each site?

a. _____ b. _____

How many hours do you spend indoors at each site on a weekly basis?

a. _____ b. _____

Describe the normal types of activities at each site.

a. _____ b. _____

Whom do you spend the most time with while at the above sites? **Enter names below:**
Circle Exposure Setting: 1 Size of a car; 2 Size of a bedroom; 3 Size of a house; 4 Size larger than a house
Circle Exposure Time >6 hr/wk Yes No

_____	Setting 1 2 3 4 >6 hr/wk Y N
_____	Setting 1 2 3 4 >6 hr/wk Y N
_____	Setting 1 2 3 4 >6 hr/wk Y N
_____	Setting 1 2 3 4 >6 hr/wk Y N
_____	Setting 1 2 3 4 >6 hr/wk Y N
_____	Setting 1 2 3 4 >6 hr/wk Y N
_____	Setting 1 2 3 4 >6 hr/wk Y N

55. Is skin testing of contacts at these sites recommended?

a. Yes No b. Yes No

Comments:

FIELD INVESTIGATIONS

- Site visits are complementary to interviewing
 - Visit should be made within 3 days of interview
 - Environmental clues may create new directions for an investigation
 - Physical conditions: room size, ventilation system, airflow patterns
- Interview and test contacts
- Collect diagnostic sputum specimens
 - For index patient as well as any contacts who are symptomatic
- Schedule follow-up clinic visits
- Provide education on TBI and TB disease

ASSIGNING PRIORITIES TO CONTACTS

- Two considerations:
 1. Risk for infection
 - Exposure frequency
 - Exposure intensity
 2. Risk for progression to disease
 - 'Vulnerable' populations

ASSIGNING PRIORITIES TO CONTACTS

- Characteristics of Contacts
 - Age: after infection, disease is more likely to occur in younger children
 - Age <5: high priority, window prophylaxis; more prone to disseminated disease
 - Immune status
 - Automatically high priority:
 - HIV infection: progresses from infection to disease more frequently and rapidly than any other known factor
 - Contacts receiving >15 mg of prednisone or equivalent for 4 weeks
 - Multiple cancer chemotherapy agents
 - Tumor necrosis-alpha antagonists

ASSIGNING PRIORITIES TO CONTACTS

- Intensity, frequency, duration of exposure
 - Air volume, exhaust rate and circulation predict the likelihood of transmission in an enclosed space
 - Proximity of contact to index case
- Based on characteristics of the index patient, susceptibility and vulnerability of contacts, and circumstances of the exposures
- **High, medium and low classifications are approximations and should be re-evaluated during the contact investigation as findings are analyzed**

ASSIGNING PRIORITIES TO CONTACTS

DSHS recommendations for the cumulative time needed during the infectious period to assign priority based on environmental exposure				
Space size	Example	High priority	Medium priority	Low priority
Very small	Car, small office, 150 sq/ft	8 or more hours	4 to less than 8 hours	Less than 4 hours
Small/medium	Classroom, meeting room	24 or more hours	12 to less than 24 hours	Less than 12 hours
Medium/large	Cafeteria, small church	50 or more hours	25 to less than 50 hours	Less than 25 hours
Large	Gymnasium, auditorium	100 or more hours	50 to less than 100 hours	Less than 50 hours

The less time exposed -> the lower the potential for transmission -> the lower the priority for evaluation of the contact



TB Program Evaluation

Report of Follow-up and Treatment for Contacts to
TB Cases and Suspects

Page 1 of

Date / /

RVCT #: - -

A. Case/Suspect Information

Last Name	First Name	Middle Name	DOB	SSN	Sex	Race	Ethnicity		
			___/___/___	___-___-___	<input type="checkbox"/> M <input type="checkbox"/> F	<input type="checkbox"/> White <input type="checkbox"/> Black/Afr. American <input type="checkbox"/> Asian <input type="checkbox"/> Amer. Indian/Alaskan <input type="checkbox"/> Other <input type="checkbox"/> Hawaiian/Pacific Is.	<input type="checkbox"/> Hispanic/Latino <input type="checkbox"/> Not Hispanic/Latino		
Street Address	Apt.	City	County	Zip Code	Census Tract	Home Phone	Work Phone		
						(___) ___-___	(___) ___-___		
Status: <input type="checkbox"/> Suspect Case: <input type="checkbox"/> New <input type="checkbox"/> Recurrent <input type="checkbox"/> Reopen			Predominant Sites: <input type="checkbox"/> Pulmonary <input type="checkbox"/> Laryngeal <input type="checkbox"/> Other _____			Is Case Married? <input type="checkbox"/> Yes <input type="checkbox"/> No		Daycare Attendee/Employee? <input type="checkbox"/> Yes <input type="checkbox"/> No	
TST Date: ___/___/___ mm Positive <input type="checkbox"/> Yes <input type="checkbox"/> No			Bacteriology						
Date Treatment Started: ___/___/___ IGRA Date: ___/___/___ Positive <input type="checkbox"/> Yes <input type="checkbox"/> No			Specimen	Collection Date	Smear	Culture	Culture ID	Resistant to:	
Adherent to Treatment? <input type="checkbox"/> Yes <input type="checkbox"/> No CXR Date: ___/___/___ Reading: ___ Cavitary: ___ <input type="checkbox"/> Yes <input type="checkbox"/> No			Did patient have contact with livestock or consume unpasteurized dairy? <input type="checkbox"/> Yes <input type="checkbox"/> No			Comments:			
Dates of Infectious Period: ___/___/___ To ___/___/___			Identified in prior contact investigation? <input type="checkbox"/> Yes <input type="checkbox"/> No			Priority Criteria <input type="checkbox"/> Pos Sputum Smear <input type="checkbox"/> Laryngeal <input type="checkbox"/> Child (5-<15) <input type="checkbox"/> Pos Sputum Culture <input type="checkbox"/> Military <input type="checkbox"/> Correctional Facility Inmate <input type="checkbox"/> Cavitary X-Ray <input type="checkbox"/> MDR-TB <input type="checkbox"/> Long term Facility Resident <input type="checkbox"/> Pulmonary <input type="checkbox"/> Child (<5) <input type="checkbox"/> Recent Converter			
DOT: <input type="checkbox"/> Yes <input type="checkbox"/> No Source Case: Name: Last, First, Middle _____ <input type="checkbox"/> Unknown			Social Behavioral Risk <input type="checkbox"/> 900 Positive <input type="checkbox"/> HBV Positive <input type="checkbox"/> Excessive alcohol use <input type="checkbox"/> Other substance use <input type="checkbox"/> Mental Illness <input type="checkbox"/> Dementia						
Fewer than 3 contacts identified due to: <input type="checkbox"/> Patient refused to cooperate <input type="checkbox"/> Patient died <input type="checkbox"/> Patient lost to follow-up <input type="checkbox"/> No contact information available <input type="checkbox"/> Other (Specify) _____									
Date assistance requested: ___/___/___ Name of assistant: _____									

B. Interview & Exposure Site Information

Interview Date: ___/___/___	Interviewed by: Last Name: _____ First Name: _____	Clinic: _____	Date Home/Other Site Visit 1: ___/___/___	Date Home/Other Site Visit 3: ___/___/___
Interview Date (> 7 days after): ___/___/___			Date Home/Other Site Visit 2: ___/___/___	Date Home/Other Site Visit 4: ___/___/___
Site #	Site Name	Location	Site Type	Est. # Exposed
1			<input type="checkbox"/> Airplane/Pub. Transport. <input type="checkbox"/> Daycare <input type="checkbox"/> Hospital/Medical <input type="checkbox"/> Office/Workplace <input type="checkbox"/> Colonia <input type="checkbox"/> Dorm <input type="checkbox"/> Leisure/Recreation <input type="checkbox"/> School/College <input type="checkbox"/> Correctional Facility <input type="checkbox"/> Home/Residence <input type="checkbox"/> Nursing Home <input type="checkbox"/> Other (Specify): _____	
2			<input type="checkbox"/> Airplane/Pub. Transport. <input type="checkbox"/> Daycare <input type="checkbox"/> Hospital/Medical <input type="checkbox"/> Office/Workplace <input type="checkbox"/> Colonia <input type="checkbox"/> Dorm <input type="checkbox"/> Leisure/Recreation <input type="checkbox"/> School/College <input type="checkbox"/> Correctional Facility <input type="checkbox"/> Home/Residence <input type="checkbox"/> Nursing Home <input type="checkbox"/> Other (Specify): _____	
3			<input type="checkbox"/> Airplane/Pub. Transport. <input type="checkbox"/> Daycare <input type="checkbox"/> Hospital/Medical <input type="checkbox"/> Office/Workplace <input type="checkbox"/> Colonia <input type="checkbox"/> Dorm <input type="checkbox"/> Leisure/Recreation <input type="checkbox"/> School/College <input type="checkbox"/> Correctional Facility <input type="checkbox"/> Home/Residence <input type="checkbox"/> Nursing Home <input type="checkbox"/> Other (Specify): _____	
4			<input type="checkbox"/> Airplane/Pub. Transport. <input type="checkbox"/> Daycare <input type="checkbox"/> Hospital/Medical <input type="checkbox"/> Office/Workplace <input type="checkbox"/> Colonia <input type="checkbox"/> Dorm <input type="checkbox"/> Leisure/Recreation <input type="checkbox"/> School/College <input type="checkbox"/> Correctional Facility <input type="checkbox"/> Home/Residence <input type="checkbox"/> Nursing Home <input type="checkbox"/> Other (Specify): _____	
Media Involvement? <input type="checkbox"/> Yes <input type="checkbox"/> No		If yes, media source and contact _____		



TB Program Evaluation

Report of Follow-up and Treatment for Contacts to TB Cases and Suspects

Page ___ of ___

Date ___/___/___

Case/Suspect Information

Last Name	First Name	Middle Name	DOB	SSN

C. Contact Information

SSN: _____	Address: _____	900 Test Results <input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> Unk	Priority (H, M, L):	Evaluation Complete? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, Reason Not Complete:	Treatment Outcome (if recommended)
City: _____ County or Country: _____	City: _____ County or Country: _____	History of positive TST? <input type="checkbox"/> Yes <input type="checkbox"/> No Date: ___/___/___	History of positive TST? <input type="checkbox"/> Yes <input type="checkbox"/> No Date: ___/___/___	<input type="checkbox"/> Died <input type="checkbox"/> 2 nd TST not done/read <input type="checkbox"/> Lost to Follow-up <input type="checkbox"/> 3 rd TST not done/read <input type="checkbox"/> Refused Evaluation <input type="checkbox"/> 1 st TST not done/read <input type="checkbox"/> No Chest X-Ray	<input type="checkbox"/> Completed adequate therapy <input type="checkbox"/> Lost/patient not located <input type="checkbox"/> Refused (patient chose to stop meds) <input type="checkbox"/> Refused (patient chose to stop evaluation) <input type="checkbox"/> Adverse treatment event <input type="checkbox"/> Died <input type="checkbox"/> Moved out of state/country <input type="checkbox"/> Provider decision-pregnant <input type="checkbox"/> Provider decision-other (specify): _____
Last Name: _____ First: _____ Middle: _____ DOB: ___/___/___ Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female Site #: _____	Phone #: _____ <input type="checkbox"/> Work <input type="checkbox"/> Home Country of Birth (if not US): _____	TST/IGRA Date: ___/___/___ mm/% Pos Neg CXR Date: ___/___/___ <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal <input type="checkbox"/> PA <input type="checkbox"/> Lateral <input type="checkbox"/> Lordotic <input type="checkbox"/> Other	TST/IGRA Date: ___/___/___ mm/% Pos Neg CXR Date: ___/___/___ <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal <input type="checkbox"/> PA <input type="checkbox"/> Lateral <input type="checkbox"/> Lordotic <input type="checkbox"/> Other	Treatment Recommended? <input type="checkbox"/> Yes <input type="checkbox"/> No Reason Treatment not started: <input type="checkbox"/> Contraindicated <input type="checkbox"/> Died <input type="checkbox"/> History of noncompliance <input type="checkbox"/> Lost to follow-up <input type="checkbox"/> Prior adequate treatment <input type="checkbox"/> Refused treatment	ATS Class <input type="checkbox"/> 0 <input type="checkbox"/> 3 <input type="checkbox"/> 1 <input type="checkbox"/> 4 <input type="checkbox"/> 2 <input type="checkbox"/> 5
Race: <input type="checkbox"/> Hispanic/Latino <input type="checkbox"/> Not Hispanic/Latino Date Identified: ___/___/___ Relation to case: _____	Exposure Length: <input type="checkbox"/> >6 hrs/wk <input type="checkbox"/> >2 but <6 hrs/wk <input type="checkbox"/> <2 hrs/wk <input type="checkbox"/> No contact was made Exposure Setting: Indoors: <input type="checkbox"/> Size of car <input type="checkbox"/> Size of bedroom <input type="checkbox"/> Size of house <input type="checkbox"/> Larger than house Outdoors: <input type="checkbox"/>	Ongoing exposure? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, date last exposure: ___/___/___	Ongoing exposure? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, date last exposure: ___/___/___	# Months Recommended: _____ # Months RX Completed: _____ Clinic: _____	<input type="checkbox"/> No further evaluation needed <input type="checkbox"/> Active TB developed
BCG <input type="checkbox"/> Yes <input type="checkbox"/> No Date: ___/___/___	BCG <input type="checkbox"/> Yes <input type="checkbox"/> No Date: ___/___/___	Treatment Started: ___/___/___	Treatment Started: ___/___/___	# Months Recommended: _____ # Months RX Completed: _____ Clinic: _____	# Months Recommended: _____ # Months RX Completed: _____ Clinic: _____
SSN: _____	Address: _____	900 Test Results <input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> Unk	Priority (H, M, L):	Evaluation Complete? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, Reason Not Complete:	Treatment Outcome (if recommended)
City: _____ County or Country: _____	City: _____ County or Country: _____	History of positive TST? <input type="checkbox"/> Yes <input type="checkbox"/> No Date: ___/___/___	History of positive TST? <input type="checkbox"/> Yes <input type="checkbox"/> No Date: ___/___/___	<input type="checkbox"/> Died <input type="checkbox"/> 2 nd TST not done/read <input type="checkbox"/> Lost to Follow-up <input type="checkbox"/> 3 rd TST not done/read <input type="checkbox"/> Refused Evaluation <input type="checkbox"/> 1 st TST not done/read <input type="checkbox"/> No Chest X-Ray	<input type="checkbox"/> Completed adequate therapy <input type="checkbox"/> Lost/patient not located <input type="checkbox"/> Refused (patient chose to stop meds) <input type="checkbox"/> Refused (patient chose to stop evaluation) <input type="checkbox"/> Adverse treatment event <input type="checkbox"/> Died <input type="checkbox"/> Moved out of state/country <input type="checkbox"/> Provider decision-pregnant <input type="checkbox"/> Provider decision-other (specify): _____
Last Name: _____ First: _____ Middle: _____ DOB: ___/___/___ Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female Site #: _____	Phone #: _____ <input type="checkbox"/> Work <input type="checkbox"/> Home Country of Birth (if not US): _____	TST/IGRA Date: ___/___/___ mm/% Pos Neg CXR Date: ___/___/___ <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal <input type="checkbox"/> PA <input type="checkbox"/> Lateral <input type="checkbox"/> Lordotic <input type="checkbox"/> Other	TST/IGRA Date: ___/___/___ mm/% Pos Neg CXR Date: ___/___/___ <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal <input type="checkbox"/> PA <input type="checkbox"/> Lateral <input type="checkbox"/> Lordotic <input type="checkbox"/> Other	Treatment Recommended? <input type="checkbox"/> Yes <input type="checkbox"/> No Reason Treatment not started: <input type="checkbox"/> Contraindicated <input type="checkbox"/> Died <input type="checkbox"/> History of noncompliance <input type="checkbox"/> Lost to follow-up <input type="checkbox"/> Prior adequate treatment <input type="checkbox"/> Refused treatment	ATS Class <input type="checkbox"/> 0 <input type="checkbox"/> 3 <input type="checkbox"/> 1 <input type="checkbox"/> 4 <input type="checkbox"/> 2 <input type="checkbox"/> 5
Race: <input type="checkbox"/> Hispanic/Latino <input type="checkbox"/> Not Hispanic/Latino Date Identified: ___/___/___ Relation to case: _____	Exposure Length: <input type="checkbox"/> >6 hrs/wk <input type="checkbox"/> >2 but <6 hrs/wk <input type="checkbox"/> <2 hrs/wk <input type="checkbox"/> No contact was made Exposure Setting: Indoors: <input type="checkbox"/> Size of car <input type="checkbox"/> Size of bedroom <input type="checkbox"/> Size of house <input type="checkbox"/> Larger than house Outdoors: <input type="checkbox"/>	Ongoing exposure? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, date last exposure: ___/___/___	Ongoing exposure? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, date last exposure: ___/___/___	# Months Recommended: _____ # Months RX Completed: _____ Clinic: _____	<input type="checkbox"/> No further evaluation needed <input type="checkbox"/> Active TB developed
BCG <input type="checkbox"/> Yes <input type="checkbox"/> No Date: ___/___/___	BCG <input type="checkbox"/> Yes <input type="checkbox"/> No Date: ___/___/___	Treatment Started: ___/___/___	Treatment Started: ___/___/___	# Months Recommended: _____ # Months RX Completed: _____ Clinic: _____	# Months Recommended: _____ # Months RX Completed: _____ Clinic: _____
SSN: _____	Address: _____	900 Test Results <input type="checkbox"/> Pos <input type="checkbox"/> Neg <input type="checkbox"/> Unk	Priority (H, M, L):	Evaluation Complete? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, Reason Not Complete:	Treatment Outcome (if recommended)
City: _____ County or Country: _____	City: _____ County or Country: _____	History of positive TST? <input type="checkbox"/> Yes <input type="checkbox"/> No Date: ___/___/___	History of positive TST? <input type="checkbox"/> Yes <input type="checkbox"/> No Date: ___/___/___	<input type="checkbox"/> Died <input type="checkbox"/> 2 nd TST not done/read <input type="checkbox"/> Lost to Follow-up <input type="checkbox"/> 3 rd TST not done/read <input type="checkbox"/> Refused Evaluation <input type="checkbox"/> 1 st TST not done/read <input type="checkbox"/> No Chest X-Ray	<input type="checkbox"/> Completed adequate therapy <input type="checkbox"/> Lost/patient not located <input type="checkbox"/> Refused (patient chose to stop meds) <input type="checkbox"/> Refused (patient chose to stop evaluation) <input type="checkbox"/> Adverse treatment event <input type="checkbox"/> Died <input type="checkbox"/> Moved out of state/country <input type="checkbox"/> Provider decision-pregnant <input type="checkbox"/> Provider decision-other (specify): _____
Last Name: _____ First: _____ Middle: _____ DOB: ___/___/___ Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female Site #: _____	Phone #: _____ <input type="checkbox"/> Work <input type="checkbox"/> Home Country of Birth (if not US): _____	TST/IGRA Date: ___/___/___ mm/% Pos Neg CXR Date: ___/___/___ <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal <input type="checkbox"/> PA <input type="checkbox"/> Lateral <input type="checkbox"/> Lordotic <input type="checkbox"/> Other	TST/IGRA Date: ___/___/___ mm/% Pos Neg CXR Date: ___/___/___ <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal <input type="checkbox"/> PA <input type="checkbox"/> Lateral <input type="checkbox"/> Lordotic <input type="checkbox"/> Other	Treatment Recommended? <input type="checkbox"/> Yes <input type="checkbox"/> No Reason Treatment not started: <input type="checkbox"/> Contraindicated <input type="checkbox"/> Died <input type="checkbox"/> History of noncompliance <input type="checkbox"/> Lost to follow-up <input type="checkbox"/> Prior adequate treatment <input type="checkbox"/> Refused treatment	ATS Class <input type="checkbox"/> 0 <input type="checkbox"/> 3 <input type="checkbox"/> 1 <input type="checkbox"/> 4 <input type="checkbox"/> 2 <input type="checkbox"/> 5
Race: <input type="checkbox"/> Hispanic/Latino <input type="checkbox"/> Not Hispanic/Latino Date Identified: ___/___/___ Relation to case: _____	Exposure Length: <input type="checkbox"/> >6 hrs/wk <input type="checkbox"/> >2 but <6 hrs/wk <input type="checkbox"/> <2 hrs/wk <input type="checkbox"/> No contact was made Exposure Setting: Indoors: <input type="checkbox"/> Size of car <input type="checkbox"/> Size of bedroom <input type="checkbox"/> Size of house <input type="checkbox"/> Larger than house Outdoors: <input type="checkbox"/>	Ongoing exposure? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, date last exposure: ___/___/___	Ongoing exposure? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, date last exposure: ___/___/___	# Months Recommended: _____ # Months RX Completed: _____ Clinic: _____	<input type="checkbox"/> No further evaluation needed <input type="checkbox"/> Active TB developed
BCG <input type="checkbox"/> Yes <input type="checkbox"/> No Date: ___/___/___	BCG <input type="checkbox"/> Yes <input type="checkbox"/> No Date: ___/___/___	Treatment Started: ___/___/___	Treatment Started: ___/___/___	# Months Recommended: _____ # Months RX Completed: _____ Clinic: _____	# Months Recommended: _____ # Months RX Completed: _____ Clinic: _____

EVALUATING CONTACTS

- Evaluation of contacts should include:
 - Previous TST/IGRA results
 - Previous TBI/TBD and treatment
 - Current TB symptoms
 - Medical conditions or risk factors making TB more likely
 - Psychiatric illness and substance abuse history
 - Type, duration and intensity of exposure
 - Socio-demographic factors, including country of birth
 - HIV results

**Texas Department of State Health Services
Tuberculosis Contact Screening Form**

You have been identified as someone who recently spent time in an enclosed area with a person suspected of having tuberculosis (TB) disease. The information below will help the health-care worker interpret the results of the standard tests for possible infection with TB.

Name: _____ Birth Date: _____ Birth Country: _____ SS#: _____
 Address: _____ Race: _____ Ethnicity: _____ Sex: _____
 City/State/Zip: _____ Telephone: _____

TB Symptom Review: Fever Chills Cough Productive Cough Night Sweats
 Hemoptysis Weight Loss (≥10%) Enlarged cervical lymph nodes
 Other: _____

Persons with symptoms of TB need a complete evaluation with TST or IGRA, sputum x 3, chest x-ray, and medical evaluation

Previous Testing/Treatment: Date and results of previous tuberculin skin test (TST): _____

History of treatment of TB infection or disease: No Yes If yes, dates of drug start/stop: _____

Medication received: _____ Completed Prescribed Course: Yes No

History of prior exposure to someone with TB disease: No Yes Names/Dates: _____

History that may increase chance of prior exposure to someone with TB disease. Please check all that apply:

- Residence or travel in country where TB is common Place/Dates: _____
- Resident or employee of correctional facility Place/Dates: _____
- Resident or employee of homeless shelter Place/Dates: _____
- Resident or volunteer in disaster shelter Place/Dates: _____
- Resident of long term care facility Place/Dates: _____
- Health care worker Place/Dates: _____
- Injection drug use

Other Medical History:

Certain conditions may result in a false-negative result to the tuberculin skin test (TST). Please check all that apply:

- HIV infection
- Receiving corticosteroids, arthritis medications (e.g., Remicoid, Humira or Enbrel) or other immunosuppressive therapy
- Immunization in the last 6 weeks with a live virus vaccine
- Illness in the last 6 weeks with rubeola, influenza, mumps, etc. Comment: _____

Persons with a positive result to the tuberculin skin test (TST) should have a chest x-ray to screen for possible TB disease. Children less than 6 years of age should have two views (PA and lateral). Pregnant women can receive a chest x-ray with proper shielding. Are you pregnant or trying to become pregnant? Yes No Comment: _____

(Recent contacts less than 5 years of age need x-rays (PA & lateral) with medical evaluation even if skin test is < 5mm.)

Some conditions increase the chance of developing TB disease if you are infected with TB. Please check all that apply:

- Diabetes mellitus
- Age less than 5 years
- Leukemias/lymphomas
- Solid organ transplant
- HIV infection or AIDS
- Silicosis
- Cancer of head/neck/lung
- Prolonged use of drugs such as prednisone, Remicoid, Humira or Enbrel
- Gastrectomy or jejunioleal bypass
- Chronic renal failure or on hemodialysis
- Weight 10% less than ideal body weight

Type of Recent Exposure

- Exposure during medical procedure
- Exposure in congregate setting
- Exposure in household of person with TB disease
- Other _____

Age

- Age < 5 years
- Age 5-15 years
- Age > 15 years

TB Skin Testing

For persons at low risk for TB, for whom tuberculin testing is not generally indicated, tuberculin skin tests are **positive at 15mm of induration or larger**: No risk identified Testing not done

****Reminder**** If/When testing is repeated, the same type of test (TST or IGRA) should be used.

First Test/Date: _____ Administered by: _____

Test Location: Left Arm Right Arm Other: _____

Manufacturer: _____ Lot #: _____ Expiration Date: _____

Read Date: _____ Read by: _____ Reading: _____mm

****Reminder**** for contacts of a person with infectious TB disease, when initial test (TST or IGRA) is negative, retest in 8-10 weeks after exposure has ended.

Second Test/Date: _____ Administered by: _____

Test Location: Left Arm Right Arm Other: _____

Manufacturer: _____ Lot #: _____ Expiration Date: _____

Read Date: _____ Read by: _____ Reading: _____mm

Interferon Gamma Release Assay (IGRA)

First Test/Date: _____ Administered by: _____

Test: QFT-GIT ___ T-Spot ___ other ___

Result: negative ___ positive ___ indeterminate ___ borderline ___ (T-Spot only)

****Reminder**** for contacts of a person with infectious TB disease, when initial test (TST or IGRA) is negative, retest in 8-10 weeks after exposure has ended.

Second Test/Date: _____ Administered by: _____

Test: QFT-GIT ___ T-Spot ___ other ___

Result: negative ___ positive ___ indeterminate ___ borderline ___ (T-Spot only)

Chest X-Rays

First Chest X-ray/Date: _____ Results: _____

Second Chest X-ray/Date: _____ Results: _____

Health-Care Provider: _____

Interpreter: _____

EVALUATING CONTACTS

- All contacts classified as high or medium priority without a previous positive TST/IGRA result or previous TBD should receive a skin test or IGRA at the initial encounter
- The DSHS Expert Physician Panel has recommended that IGRA be the TB test of choice
- Contacts with positive TST/IGRA result ≥ 5 mm should be evaluated by a CXR and symptom screen
 - If symptomatic, collect sputum specimens

EVALUATING SPECIFIC GROUPS

- Children <5 years old should receive a TST, CXR and a directed medical evaluation
- If initial TST ≤ 5 mm, window prophylaxis is recommended after TBD is excluded
- Re-test with TST 8-10 weeks post-exposure
 - If 2nd TST is negative, treatment can be D/C
 - If 2nd TST is positive, give full course of treatment for TBI

EVALUATING SPECIFIC GROUPS

- Immunocompromised individuals
 - IGRA draw, CXR and directed medical evaluation
 - Do not need to wait for IGRA results to complete evaluation
- Even if 2nd round test is negative, a full course of treatment for TBI is recommended

TREATING CONTACTS WITH TBI

- Benefits of contact investigations:
 - Finding additional cases of TB disease, interrupting disease transmission by treatment
 - **Finding and treating persons with TBI**
- National health objective for 2010: complete treatment in 85% of contacts who have TBI
 - Rates of treatment initiation and completion have fallen short
 - Invest in efforts to focus resources on the contacts most in need of treatment
 - Monitor treatment
 - Provide DOT, incentives and enablers

EXPANDING A CONTACT INVESTIGATION

- Consider expanding an investigation if one or more of the following criteria exist:
 - Unexpectedly large rate of TBI or TBD in high-priority contacts
 - TBD in low-priority contacts
 - TBI in any contacts under 5 years of age
 - Contacts with TST/IGRA conversion

EXPANDING A CONTACT INVESTIGATION

- After reviewing the results of high and medium priority contacts, select the additional contacts by extrapolating the risks for infection
 - Look at contacts by exposure site to get accurate picture
- When results from an investigation indicate that it should be expanded, but resources are insufficient, seeking assistance from the next higher public health administrative level is recommended

RESOURCES

- Centers for Disease Control and Prevention. “Guidelines for the Investigation of Contacts of Persons with Infectious Tuberculosis; Recommendations from the National Tuberculosis Controllers Association and CDC”. United States. MMWR 2005;54(No. RR-15), pp. 1-47
- Lana Jones: (512) 533-3159
- TB forms: texastb.org