TEXAS Health and Human Services | Texas Department of State Health Services

Brucellosis Laboratory Exposure Questionnaire

NBS Patient ID (if applicable): _____ **PLEASE PRINT LEGIBLY**

Instructions: This questionnaire may be used to capture information on each potentially exposed individual when there has been a possible laboratory exposure involving *Brucella* species. This questionnaire will collect information on the type of exposure, assist with risk classification and, based on risk classification, provide post-exposure prophylaxis and testing recommendations. This questionnaire may be used by public health, occupational health or medical personnel.
If the individual develops clinical signs or symptoms compatible with brucellosis, the suspected case should be reported to public health officials within one work day; additional laboratory testing may be recommended.

Form completed by *(Please print clearly and do not abbreviate)*

Name: _____ Phone: _____

Affiliation: _____ Email: _____

Demographic Information

Last Name: _____ First Name: _____

Date of Birth: _____/_____/_____ Age: _____ Phone number: _____

Street Address: _____ City, State, Zip: _____

County of Residence: _____ Sex: ☐ Male ☐ Female ☐ Unknown

If female, is the individual pregnant? ☐ Yes ☐ No ☐ Unknown

Occupational Information

What type of facility does the individual work in?

☐ Hospital Laboratory ☐ Other research laboratory
☐ Commercial diagnostic laboratory ☐ Public health/reference laboratory
☐ University research laboratory ☐ Other: _____

What type of laboratory did the exposure take place in?

☐ Microbiology ☐ Other: _____

What is the name of the workplace/facility? _____

What is the zip code of the workplace/facility? _____

Which describes the individual's occupation at the time of potential exposure?

☐ Laboratory technician ☐ Microbiologist ☐ Laboratory manager ☐ Student
☐ Volunteer ☐ Cleaning/maintenance staff ☐ Other: _____

Exposure Event Information

About how long was the individual in the laboratory while the isolate was being manipulated?

_____ ☐ Minutes ☐ Hours ☐ Unknown

Was the individual notified that specimen may contain *Brucella* prior to working with it?

☐ Yes ☐ No ☐ Unknown

Did the individual use personal protective equipment (PPE) while the isolate was being manipulated?

☐ Yes ☐ No ☐ Unknown

If yes, please check all PPE used:

☐ Gloves ☐ Eye protection ☐ Face mask ☐ Respirator ☐ Closed footwear
☐ Other: _____ ☐ Unknown

Was any work done on an open bench? ☐ Yes ☐ No ☐ Unknown

Individual's Name:_____ Date of Birth: _____/_____/_____

Lab Activities

Please check all of the activities that were performed on the isolate and where these were performed.

Type of Manipulation	Worked with…		Did not work with but was…		Unknown
	In hood	Out of hood	≤5 ft away	≥5 ft away	
Antibiotic resistance test	☐	☐	☐	☐	☐
Blood culture bottle	☐	☐	☐	☐	☐
Broke container of *Brucella*	☐	☐	☐	☐	☐
Catalase test*	☐	☐	☐	☐	☐
Centrifuge setup or run*	☐	☐	☐	☐	☐
Examined growth on media	☐	☐	☐	☐	☐
Flaming loop	☐	☐	☐	☐	☐
Gram stain	☐	☐	☐	☐	☐
Inoculation of media	☐	☐	☐	☐	☐
Liquid suspension	☐	☐	☐	☐	☐
Mouth pipette	☐	☐	☐	☐	☐
Opened a plate	☐	☐	☐	☐	☐
Oxidase test	☐	☐	☐	☐	☐
Sniffed plate	☐	☐	☐	☐	☐
Sonicating	☐	☐	☐	☐	☐
Spilled media with culture*	☐	☐	☐	☐	☐
Splashed media with culture*	☐	☐	☐	☐	☐
Subculture isolate	☐	☐	☐	☐	☐
Urea test	☐	☐	☐	☐	☐
Vortexing*	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐

* Manipulation classified as an aerosol generating procedure. Centrifuging is considered an aerosol generating event when performed without sealed carriers. Manipulations like automated pipetting of a suspension containing the organisms, grinding, blending, or shaking the specimen, or procedures for suspension in liquid to produce standard concentration for identification may require further investigation.
From Traxler *et al*. 2013 http://jcm.asm.org/content/51/9/3132

Risk Assessment

Use the information obtained in the interview and the "Laboratory Exposure Risk Assessment and Recommendations" table below to properly assign a risk classification to the exposed individual. Follow-up/monitoring should be conducted accordingly. Please contact your regional or local health department for assistance determining an exposed individual's level of risk.

Risk Level: ☐ High Risk ☐ Low Risk ☐ Minimal (but not zero) Risk ☐ Unsure/Don't Know

Laboratory Exposure Risk Assessment and Post-exposure prophylaxis (PEP) Recommendations

HIGH RISK

Exposure scenario	PEP recommendations	Follow-up/ monitoring
Person who manipulates *Brucella* isolate outside of a certified Class II biosafety cabinet (BSC) or within BSC without appropriate personal protective equipment (i.e., gloves, gown, eye protection). All persons present during the occurrence of aerosol-generating events (e.g., centrifuging without sealed carriers, vortexing, sonicating, spillage/splashes) with manipulation of *Brucella* isolate on an open bench.	Doxycycline 100mg twice daily, and rifampin 600 mg once daily, for three weeks. For patients with contraindications to doxycycline or rifampin: TMP-SMZ, in addition to another appropriate antimicrobial, should be considered. Two antimicrobials effective against *Brucella* should be given. Pregnant women should consult their obstetrician. **Note**: RB51 is resistant to rifampin *in vitro*, and therefore this drug should not be used for PEP or treatment courses.	Regular symptom watch (e.g., weekly) and daily self-fever checks through 24 weeks post-exposure, after last known exposure. Sequential serological monitoring at 0 (baseline), 6, 12, 18, and 24 weeks post-exposure, after last known exposure. **Note**: No serological monitoring is currently available for RB51 and *B. canis* exposures in humans.

Individual's Name:_____ Date of Birth: _____/_____/_____

LOW RISK		
Exposure scenario	**PEP recommendations**	**Follow-up/ monitoring**
Person present in the lab at a distance of greater than 5 feet from someone manipulating *Brucella* isolate).	May consider if immunocompromised or pregnant. Discuss with health care provider (HCP). **Note**: RB51 is resistant to rifampin *in vitro*, and therefore this drug should not be used for PEP or treatment courses.	Regular symptom watch (e.g., weekly) and daily self-fever checks through 24 weeks post-exposure, after last known exposure. Sequential serological monitoring at 0 (baseline), 6, 12, 18, and 24 weeks post-exposure, after last known exposure. **Note**: No serological monitoring is currently available for RB51 and *B. canis* exposures in humans.
MINIMAL RISK		
Exposure scenario	**PEP recommendations**	**Follow-up/ monitoring**
Person who manipulates *Brucella* isolate in a certified Class II biosafety cabinet, with appropriate personal protective equipment (i.e., gloves, gown, eye protection). Person present in the lab while someone manipulates *Brucella* isolate in a certified Class II biosafety cabinet.	None	N/A

Post-Exposure Prophylaxis (PEP) Assessment

Please complete the following questions on week 3 after the exposure OR at the time of PEP completion ONLY if antimicrobial prophylaxis was recommended for the individual.

Did the individual receive antibiotic treatment? ☐ Yes ☐ No ☐ Unknown

Which antibiotics were recommended to individual? (mark all that apply)

☐ Doxycycline ☐ Rifampin* ☐ Streptomycin

☐ Unknown ☐ Other (specify): _____

*Rifampin is not recommended for exposure to *B. abortus* vaccine strain RB51 due to strain resistance.

Did individual take the medication? ☐ Yes ☐ No ☐ Unknown

If yes, when did they begin? ____/____/_____ ☐ Unknown

If no, why not? ☐ Individual refused ☐ Pregnant

☐ Side effects of antibiotics ☐ Other: _____

Did the individual miss any doses (not days) of the antibiotic? ☐ Yes ☐ No

If yes, indicate which antibiotic and the total doses missed

☐ Doxycycline (Doses): _____ ☐ Rifampin (Doses): _____

☐ TMP-SMZ/Bactrim (Doses): _____ ☐ Other: _____ (Doses): _____

What was the reason? ☐ Side effects (adverse events) ☐ Forgot ☐ Other: _____

Did individual complete the full course of antibiotics? ☐ Yes ☐ No

If no, what was the reason? ☐ Refused ☐ Side effects ☐ Switched antibiotics

☐ Pregnant ☐ Other: _____

Did the individual experience any side effects caused by the antibiotics? ☐ Yes ☐ No ☐ Unknown

Describe: _____

Reported by *(Please print clearly and do not abbreviate)*

Name: _____ Phone: _____

Affiliation: _____ Email: _____

Address: _____ City: _____

County: _____ State: _____ Zip: _____

Individual’s Name:________________________________ Date of Birth: ______/______/_________

Symptom Monitoring Tool

This table may be used as a tool to collect information on symptoms associated with brucellosis.

- **Beginning from the date of last exposure, temperature should be actively monitored for fever at least daily for 4 weeks.**
- **Broader symptoms of brucellosis should be passively monitored for six months from the last exposure.**

If the individual develops clinical signs or symptoms compatible with brucellosis, the suspected case should be reported to public health officials within one work day; additional laboratory testing may be recommended.

Signs and Symptoms of Brucellosis

Symptoms (check if present on date of visit)	Date Individual Seen at Occupational Health Clinic (daily or weekly symptom watch)																								Symptom Onset		
	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	/ /	N/A	UNK	Date
Fever (> 100.4 F)																									☐	☐	
Sweats																									☐	☐	
Chills																									☐	☐	
More tired/ less energy than usual																									☐	☐	
Severe/ persistent headache																									☐	☐	
Muscle pains																									☐	☐	
Joint pains																									☐	☐	
Unintended weight loss																									☐	☐	
Loss of appetite																									☐	☐	
Vomiting																									☐	☐	
Diarrhea																									☐	☐	
Other: __________																									☐	☐	

Source: The information included in this questionnaire is based on the published exposure guidelines on the CDC Brucellosis website and in Traxler *et al*. 2013 http://jcm.asm.org/content/51/9/3132.