

LOCAL HEALTH DEPARTMENT DISEASE INVESTIGATION STEPS

NC REPORTABLE DISEASE/CONDITION	NC DISEASE CODE	INFECTIOUS AGENT (S)
Q FEVER	32	<i>Coxiella burnetti</i>
PREPARING FOR INVESTIGATION		
KNOW THE DISEASE/CONDITION	<ul style="list-style-type: none"> • Read about Q Fever in the CD Manual. • See the case definition for Q Fever in the CD Manual. • Study APHA <i>Control of Communicable Diseases Manual</i>, 19th ed., pp 494 - 498. • Print and review reporting forms: <p style="margin-left: 20px;"><i>Part 1: Confidential Disease Report (DHHS 2124)</i></p> <p style="margin-left: 20px;"><i>Part 2: Q Fever (DHHS/EPI #32)</i></p> 	
BIOTERRORISM POTENTIAL CATEGORY B	<p><i>C burnetti</i> is a potential bioterrorism agent. Investigate first as a naturally occurring event; if bioterrorism is suspected, notify local law enforcement and state public health officials.</p>	
CONDUCTING INVESTIGATION		
COLLECT CLINICAL INFORMATION	<ul style="list-style-type: none"> • If patient hospitalized for this disease, obtain medical record (admission note, progress note, chest x-ray(s), other lab report(s), and discharge summary). • Obtain healthcare provider clinical notes from date(s) of service for this disease/condition. • Look for evidence in the medical record that supports clinical findings described in the case definition. • Inquire if the patient had a clinically compatible illness and if the patient's history is positive for any of the following risk factors associated with Q Fever cases diagnosed in NC and other eastern states: <ul style="list-style-type: none"> ○ recent immigration from, travel to, or military deployment to a Q Fever-endemic country ○ consumption of unpasteurized milk, cheese, or other dairy products ○ work in a slaughterhouse, farm environment, veterinary practice or laboratory ○ handling of livestock, especially sheep, goats or cattle ○ involvement or exposure to birth products of livestock or pets ○ recent tick exposure 	
REVIEW LABORATORY INFORMATION	<ul style="list-style-type: none"> • Review laboratory report(s) specific to this disease. • Note: Commercial Q Fever tests reported as positive at titers $\leq 1:64$ probably represent nonspecific background reactivity that is being misinterpreted or represent residual antibody from previous exposure(s) (not current infection). The CDC lab does not consider a Q Fever IFA positive unless it is $\geq 1:128$ and the person has a clinically compatible illness. For 	

	<p>questionable cases, confirmatory testing is recommended and is available through the SLPH/CDC.</p> <ul style="list-style-type: none"> • Request that positive culture isolates be sent to the SLPH for confirmatory testing. • Evaluate laboratory results to determine if the requirements of the case definition are satisfied. • Contact health care provider if further testing of the patient is indicated.
APPLY THE CASE DEFINITION	<ul style="list-style-type: none"> • Use the case definition to determine if the clinical and laboratory findings meet the case definition criteria.
IMPLEMENTING CONTROL MEASURES	
ATTEMPT TO IDENTIFY SOURCE OF EXPOSURE	<ul style="list-style-type: none"> • Review clinical documentation and interview patient or other knowledgeable person for potential source(s) of exposure: <ul style="list-style-type: none"> ○ travel (including travel associated with military deployment) ○ consumption of unpasteurized milk, cheese or other dairy products ○ work in a slaughterhouse, farm environment, veterinary practice or laboratory ○ handling of livestock, especially sheep, goats or cattle ○ involvement or exposure to birth products of livestock or pets ○ recent tick exposure • If source of exposure is suspected to be livestock or unpasteurized milk/dairy products, or a slaughterhouse, the North Carolina Department of Agriculture (NCDA) must be notified. The county agricultural extension agent may be an additional resource to consider. The state public health veterinarian can assist with contacting these agencies (919) 733-3419.
IMPLEMENT CONTROL MEASURES TO PREVENT DISEASE AND ADDITIONAL EXPOSURES	<ul style="list-style-type: none"> • Consider chemoprophylaxis of laboratorians or others potentially exposed who may have worked with the agent prior to its identification as <i>C. burnetti</i>. • Use the CDC website www.cdc.gov to teach at risk people about the disease. • CD nurses should work with their local health director, environmental health specialist and NCDA to evaluate risk, identify contaminated areas and the need for personal protective equipment, restrict access to contaminated areas such as barns, laboratories or slaughterhouses, ensure disinfection of contaminated areas and properly dispose of animal carcasses (no necropsy). • CD nurses should work with local health director and NCDA to stop distribution of any potentially contaminated products or foods. • Question any cases as to recent blood or tissue donations and notify any blood or tissue bank that may have received donations from an infected individual.

REPORTING INVESTIGATION	
REPORT TO NC COMMUNICABLE DISEASE BRANCH (CD)	<ul style="list-style-type: none"> • Enter Part 1 and Part 2 Communicable Disease Reports into NC EDSS as a new event, or update the existing event if already entered. • Assign to State Disease Registrar when case investigation complete. • Do an "Event_Print" in NC EDSS after assigning to the state. Keep for one year along with any additional notes. Maintain as a surveillance file, not a medical record.
CASE FINDING	<ul style="list-style-type: none"> • During the course of the investigation, interview other exposed individuals for symptoms of illness. • Refer symptomatic individuals to healthcare provider for evaluation.
SPECIAL CONSIDERATIONS	
STATE LABORATORY OF PUBLIC HEALTH (SLPH) TESTING	<ul style="list-style-type: none"> • In high profile or questionable cases, consider verifying the laboratory test results by sending specimen(s) to the SLPH/CDC for reference testing. (Examples of high profile cases may include imminent health hazard, work in slaughterhouse, laboratory or other high risk occupation, closing a business operation, sale of illegal products, hospitalized patients, outbreaks, etc.) • May also consider reference lab testing by SLPH/CDC for cases with a high degree of suspicion for Q Fever where commercial test results do not satisfy the CDC case definition. • If sending a clinical specimen to SLPH for confirmatory testing, specify on the Special Bacteriology form DHHS T806 to test for Q Fever. Use the following link for information and forms: http://slph.state.nc.us/Microbiology/default.asp • If BT origin suspected, inform SLPH by calling the BT Duty pager at (919) 310-4243 or cell phone at (919) 807-8600.
PUBLIC HEALTH PREPAREDNESS AND RESPONSE (PHPR)	<ul style="list-style-type: none"> • If bioterrorism event likely: <ul style="list-style-type: none"> ○ Inform local Preparedness Coordinator. ○ Call the PHPR 24/7 pager (877) 236-7477.
PERSONAL PROTECTIVE MEASURES	<ul style="list-style-type: none"> • If bioterrorism event, crime control and public safety will direct on-site environmental investigation. • If non-bioterrorism event, public health workers should exercise caution in doing environmental investigations. • Personal protective equipment (including respiratory protection) is indicated if entering any area contaminated with <i>C. burnetti</i> or when handling any material potentially contaminated with <i>C. burnetti</i>.

RISK COMMUNICATION	<ul style="list-style-type: none">• Consider using risk communication tools conservatively if this is a low profile, naturally-occurring case.• Outbreaks of even naturally-occurring cases will need NC HAN alerts, EPI-X reports, MD alerts, and probably a press release.• In a bioterrorism event, pre-existing crisis communication plans should be enacted.• NC DHHS Public Information Office (919) 733-9190 is available to assist local health departments as needed.
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