

LOCAL HEALTH DEPARTMENT DISEASE INVESTIGATION STEPS

NC REPORTABLE DISEASE/CONDITION	NC DISEASE CODE	INFECTIOUS AGENT (S)
TYPHOID, CARRIAGE	144	<i>S. typhi</i>
PREPARING FOR INVESTIGATION		
KNOW THE DISEASE/CONDITION	<ul style="list-style-type: none"> • Read about Typhoid Carriage/Acute in the CD Manual. • See the case definition for Typhoid Carriage in the CD Manual. • Study APHA <i>Control of Communicable Diseases Manual</i>, 19th ed., pp 664 - 671. • Print and review reporting forms: <p><i>Part 1: Confidential Disease Report (DHHS 2124)</i> <i>Part 2: Typhoid, Carriage (DHHS/EPI #144)</i></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, 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. 	
REVIEW LABORATORY INFORMATION	<ul style="list-style-type: none"> • Review laboratory report(s) specific to this disease. • Evaluate laboratory results to determine if requirements of the case definition are satisfied. Serologic evidence alone is not sufficient for a diagnosis. Isolation of the organism is required. • Contact healthcare provider if further testing of the patient is indicated. 	
APPLY THE CASE DEFINITION	<ul style="list-style-type: none"> • Use 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 records for potential source(s) of exposure. • Interview case for travel history. • Obtain food history to include seafood (particularly oysters), water source, raw fruits/vegetables, milk/milk products. Include source (location seafood acquired from, restaurant, grocery store, deli, etc.). • Make every effort to find the source of the illness. 	

<p>IMPLEMENT CONTROL MEASURES TO PREVENT DISEASE AND ADDITIONAL EXPOSURES</p>	<ul style="list-style-type: none"> • If food handler, exclude from food handling until asymptomatic, culture negative and following best practice hand hygiene. • Must have 3 consecutive negative stool cultures (and urine cultures in areas endemic for schistosomiasis) at least 1 month apart with initial culture being done 48 hours after completion of antibiotics. At least 1 of the 3 consecutive samples should be taken after purging. • Inform environmental health specialist and the Communicable Disease Branch if a food handler has been excluded. • If healthcare worker with direct patient care, same exclusion criteria as for food handler apply. • If childcare attendee younger than 5 years of age, exclude until 3 consecutive negative stool specimens at least 1 month apart with initial culture being done 48 hours after completion of antibiotics. For those 5 years of age and older, exclude until 24 hours without diarrhea. • Household contacts of cases should not be employed in sensitive occupations (food handlers/healthcare workers, etc.) until 2 negative stool and urine cultures at least 24 hours apart have been obtained. • Antibiotic treatment is recommended for typhoid carriers and is successful in 80% of the cases. Follow-up stool specimens should be done to confirm negativity. • Typhoid vaccination may be recommended to household contacts of known typhoid carriers. • Case and contacts should be instructed in proper hand washing before preparing, eating or serving food and after defecation. • Use the CDC website www.cdc.gov to teach at risk people about the disease.
<p>REPORTING INVESTIGATION</p>	
<p>REPORT TO NC COMMUNICABLE DISEASE BRANCH (CD)</p>	<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 event 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, look for symptoms of disease in other exposed individuals (other infants in daycare or household contacts, for example). • Refer symptomatic individuals to healthcare provider for evaluation. • Individuals who are symptomatic are reported as Typhoid, Acute (#44).
SPECIAL CONSIDERATIONS	
STATE LABORATORY OF PUBLIC HEALTH (SLPH) TESTING	<ul style="list-style-type: none"> • Verify the laboratory test results of all cases by sending specimen(s) to the SLPH/CDC for reference testing.
RISK COMMUNICATION	<ul style="list-style-type: none"> • Cases of this disease may pique interest among media, health professionals, government officials, and the public. • Outbreaks of cases will need NC HAN alerts, EPI-X reports, MD alerts, and probably a press release. • NC DHHS Public Information Office (919) 733-9190 is available to assist local health departments as needed.