### LOCAL HEALTH DEPARTMENT DISEASE INVESTIGATION STEPS

<table>
<thead>
<tr>
<th>NC REPORTABLE DISEASE/CONDITION</th>
<th>NC DISEASE CODE</th>
<th>INFECTIOUS AGENT(S)</th>
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<tbody>
<tr>
<td>Shigellosis</td>
<td>39</td>
<td>Shigella species</td>
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#### PREPARING FOR INVESTIGATION

**KNOW THE DISEASE/CONDITION**
- Read about Shigellosis in the CD Manual.
- See the case definition for Shigellosis in the CD Manual.
- Refer to CDC MMWR: Outbreaks of Multidrug-Resistant *Shigella sonnei* Gastroenteritis Associated with Day Care Centers – Kansas, Kentucky and Missouri, 2005. October 6, 2006; 55(39); pp 1068-1071. Available from: [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5539a3.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5539a3.htm).
- Print and review reporting forms:
  - *Part 1: Confidential Disease Report (DHHS 2124)*
  - *Part 2: Shigellosis (DHHS/EPI # 39)*

**CONDUCTING INVESTIGATION**

**COLLECT CLINICAL INFORMATION**
- Review surveillance for completeness. If surveillance is not complete contact healthcare provider.
- Before contacting the patient, verify what information the healthcare provider has shared with the patient/family.

**REVIEW LABORATORY INFORMATION**
- Evaluate laboratory result to determine if requirements of the case definition are met.
- Ensure reporting laboratory has forwarded the specimen to the SLPH for serotyping.

**APPLY THE CASE DEFINITION**
- Use the case definition to determine if the information you have makes this a reportable case.

**IMPLEMENTING CONTROL MEASURES**

**ATTEMPT TO IDENTIFY SOURCE OF EXPOSURE**
- Interview the patient (use the Part 2 Form).
- Ask about contact to other individuals with similar symptoms. More than one case may be an outbreak.
- Determine if the case is a childcare worker or attendee, healthcare worker or food handler.

**IMPLEMENT CONTROL MEASURES TO PREVENT DISEASE AND ADDITIONAL EXPOSURES**
- Strict attention to hand hygiene is essential to limit the spread of *Shigella*.
- For any suspect or confirmed case(s) of Shigella associated with a childcare center or school please refer to the Shigellosis Control Measures for Childcare Centers and K – 12 Schools and call the Epi On Call at 919-733-3419 for further guidance.
- Healthcare workers and child care workers – Due to the small infective dose, exclude from work until asymptomatic and have tested negative on stool.

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specimen per the “Readmission Testing Protocol” in the “Shigellosis Control Measures for Childcare Centers and K – 12 Schools” not sooner than 48 hours after completion of antibiotics if prescribed and taken. Provide instruction on best practice hand hygiene.

- Due to the small infective dose, exclude food employees from work. Inform Environmental Health Specialist and CD Branch if an ill food employee has been excluded.
- Readmission for food employees should be determined in consultation with your Environmental Health Specialist, based on criteria set in the North Carolina Food Code Manual.

### REPORTING INVESTIGATION

**REPORT TO THE NC COMMUNICABLE DISEASE BRANCH (CD)**

- 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

- During the course of the investigation, look for symptoms of disease in other exposed individuals (other infants in childcare or household contacts, for example).
- Refer symptomatic individuals to healthcare provider for evaluation.
- If two or more cases are found that are epidemiologically linked, report as an outbreak of Shigellosis.
- If indicated, submit Outbreak Summary Report within 30 days from close of outbreak.
- If additional testing is necessary advise individuals to bring specimens in to be processed ASAP after collection as the *shigella* organism remains viable for only a short time outside the body.

### SPECIAL CONSIDERATIONS

<table>
<thead>
<tr>
<th>SMALL INFECTIVE DOSE</th>
<th><em>Shigella</em> is easily transmitted due to the small infectious dose.</th>
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<tbody>
<tr>
<td>MODE OF TRANSMISSION</td>
<td>Although transmission is mainly fecal-oral, contaminated food and/or water has also been implicated.</td>
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<tr>
<td>HAND WASHING</td>
<td>Hand washing is the single most important measure to prevent the spread of <em>shigellosis</em>. Include the importance of cleaning under the fingernails when educating.</td>
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<tr>
<td>ANTIBIOTIC USE</td>
<td>Antibiotics may shorten the duration and severity of the illness as well as the duration of pathogen excretion. The decision to prescribe should be a clinical, not a public health one.</td>
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<tr>
<td>SPECIMEN SITES</td>
<td>• Shigellosis that is lab confirmed at sites other than the GI tract is reportable whether symptomatic or not.</td>
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</tbody>
</table>
| RISK COMMUNICATION | • Outbreaks of this disease in child care or schools will generate concern among parents, health professionals, and the media. Be prepared to answer questions and offer preventative measures.  
• Consider using risk communication tools conservatively if this is a low profile case.  
• 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. |