

# Communicable Disease Case Reporting and Investigation Protocol

## Shigellosis

### I. Identification and definition of cases

#### A. Clinical description

An acute infection of variable severity characterized by diarrhea (may be bloody or contain mucus), fever, nausea, cramps, and tenesmus (sensation of needing to pass stool, accompanied by pain, cramping, and straining). Mild cases typically resolve within one week, but prolonged or severe illness may require antibiotic treatment. Drug-resistant strains are a concern. Asymptomatic infections may occur.

Shigellosis is transmitted fecal-orally through ingestion of contaminated food or water, during sexual or other close contact with an infected person, or by touching surfaces contaminated with *Shigella* bacteria. *Shigella* is highly contagious, and outbreaks of shigellosis often occur in schools, childcare centers, close-knit communities, congregate living settings, and within sexual networks, particularly those of men who have sex with men (MSM).

#### B. Laboratory criteria

##### Confirmatory laboratory evidence

Isolation of *Shigella* from a clinical specimen.

##### Supportive laboratory evidence

Detection of *Shigella* or *Shigella*/Enteroinvasive *E. coli* (EIEC) in a clinical specimen using a culture-independent diagnostic test (CIDT), such as a PCR or an antigen-based test.

**Note:** Some commercially available CIDTs are unable to distinguish between *Shigella* spp. and Enteroinvasive *E. coli*. Positive results may be reported as *Shigella*/Enteroinvasive *E. coli* (EIEC).

#### C. Wisconsin surveillance case definition

##### Confirmed case

A case that meets the confirmatory laboratory criteria for diagnosis.

##### Probable case

A case that meets the supportive laboratory criteria for diagnosis, **or** a clinically compatible illness that is epidemiologically linked to a case that meets the supportive or confirmatory laboratory criteria for diagnosis.

**Note:** Clinical laboratories are requested to forward all isolates of *Shigella*, and all clinical specimens from which *Shigella*/Enteroinvasive *E. coli* (EIEC) was detected using a CIDT, to the Wisconsin State Laboratory of Hygiene (WSLH) for surveillance purposes.

CIDT positive specimens from which *Shigella* was not isolated (culture negative or culture not performed) should remain classified as probable *Shigella* cases.

#### D. Criteria to Distinguish a new case

- A case should not be counted as a new case if laboratory results were reported within 90 days of a previously reported infection in the same individual.

- When two or more different species are identified from one or more specimens from the same individual, each should be reported as a separate case.

## II. Reporting

### A. Wisconsin disease surveillance category II – methods for reporting

This disease shall be reported to the patient's local health officer or to the local health officer's designee within 72 hours of recognition of a case or suspected case, per Wis. Admin. Code § [DHS 145.04\(3\)\(b\)](#). Report electronically through the Wisconsin Electronic Disease Surveillance System (WEDSS), or mail or fax a completed Acute and Communicable Disease Case Report ([F-44151](#)) to the address on the form.

### B. Responsibility for reporting

According to Wis. Admin. Code § [DHS 145.04\(1\)](#), persons licensed under Wis. Stat. ch. [441](#) or [448](#), laboratories, health care facilities, teachers, principals, or nurses serving a school or day care center, and any person who knows or suspects that a person has a communicable disease identified in [Appendix A](#)

### C. Clinical criteria for reporting

None

### D. Laboratory criteria for reporting

Laboratory evidence of *Shigella* infection by culture or non-culture-based methods. All positive results should be reported, regardless of specimen source.

## III. Case investigation

### A. Responsibility for case investigation

It is the responsibility of the local or Tribal health department (LTHD) to investigate or arrange for investigation of suspected or confirmed cases as soon as is reasonably possible. A case investigation may include information collected by phone, in person, in writing, or through review of medical records or communicable disease report forms, as necessary and appropriate.

### B. Required documentation

1. Complete the WEDSS disease incident investigation report, including appropriate, disease-specific tabs. This may be facilitated by completing a [Routine Enteric Follow-Up Worksheet](#). See page 1 of the Worksheet for specific instructions regarding which sections should be completed during routine follow-up.
2. Upon completion of investigation, set WEDSS disease incident process status to "Sent to State."

### C. Additional investigation responsibilities

1. Assess patient for high-risk settings or activities including food handling, providing patient care or childcare, or attending a childcare facility.
2. If the case is potentially outbreak-related, [notify](#) the Wisconsin Division of Public Health (DPH), Bureau of Communicable Diseases (BCD).

## IV. Public health interventions and prevention measures

- A. In accordance with Wis. Admin. Code § [DHS 145.05](#), local and Tribal public health agencies should follow the methods of control recommended in the current editions of *Control of Communicable Diseases Manual*, edited by David L. Heymann, published by the American Public Health Association, and the American Academy of Pediatrics' *Red Book: Report of the Committee on Infectious Diseases*, unless otherwise specified by the state epidemiologist.

- B.** Exclude symptomatic patients from high-risk settings including food handling, providing patient care or childcare, or attending a childcare facility or 4K program.
1. Individuals must be excluded from high-risk settings while ill and until they have been cleared by their LTHD. Return requires that two stool specimens from the patient have tested negative for *Shigella* by culture.
    - a. Stool specimens for clearance (test of cure) should be collected:
      - (1) After the individual is asymptomatic **and**
      - (2) At least 48 hours after discontinuing of antimicrobial therapy **and**
      - (3) At least 24 hours apart.
  2. Exclusion, restriction, and reinstatement criteria used by the LTHD for infected individuals who are food employees should meet [Wisconsin Food Code](#) criteria, and may be more restrictive than the Wisconsin Food Code.
- C.** Follow-up including case finding and education should be conducted in high-risk settings where a shigellosis patient 1) spent time during the four days prior to illness onset 2) worked or attended while symptomatic, or 3) worked or attended after symptom resolution but before having verified negative stool specimens.
- D.** During outbreaks, especially large or complex outbreaks which often occur in childcare settings and schools, the LTHD may decide to implement more stringent control measures and exclusion and return criteria. Please [consult](#) the Wisconsin Division of Public Health (DPH), Bureau of Communicable Diseases (BCD).
- E.** Educate the public about proper handwashing after using the toilet, changing diapers, assisting another with toileting, handling contaminated clothing or linens, before cooking, or when in contact with people who are highly susceptible to enteric illnesses including immunocompromised individuals, preschool age children, and older adults.
- F.** People traveling internationally should avoid foods and beverages that could be contaminated with bacteria, especially foods such as raw fruits and vegetables, raw seafood, undercooked meat or poultry, unpasteurized dairy products, food from street vendors, and untreated water (including ice) in areas lacking adequate chlorination.
- G.** Share targeted messaging about sexual transmission of shigellosis. Recommend avoiding sexual activity while ill and for two weeks after diarrhea has resolved. Encourage the use of condoms and dental dams during oral sex and oral-anal sex, and recommend washing hands, genitals, anus, and sex toys with soap and water before and after sexual activity.

## V. Contacts for consultation

- Bureau of Communicable Diseases, Enteric and Waterborne Disease Unit:  
[DHSDPHEnterics@dhs.wisconsin.gov](mailto:DHSDPHEnterics@dhs.wisconsin.gov)
- Local health departments and Tribal health agencies: <https://www.dhs.wisconsin.gov/lh-depts/index.htm>
- Bureau of Communicable Diseases, Communicable Diseases Epidemiology Section: 608-267-9003
- Wisconsin State Laboratory of Hygiene: 1-800-862-1013

## VI. Related references

- A.** Heymann DL, ed. Shigellosis. In: *Control of Communicable Diseases Manual*. 21st ed. Washington, DC: American Public Health Association, 2022: 575-580
- B.** Pickering LK, ed. *Shigella* Infections. In: *Red Book: 2021-2024 Report of the Committee on Infectious Diseases*. 32<sup>nd</sup> ed. Itasca, IL: American Academy of Pediatrics, 2021: 668-672
- C.** Centers for Diseases Control and Prevention website: <https://www.cdc.gov/shigella/index.html>
- D.** Wisconsin Food Code: [http://docs.legis.wisconsin.gov/code/admin\\_code/atcp/055/75\\_.pdf](http://docs.legis.wisconsin.gov/code/admin_code/atcp/055/75_.pdf)