



Communicable Disease Case Reporting and Investigation Protocol ENTEROPATHOGENIC *E. COLI* (EPEC)

I. IDENTIFICATION AND DEFINITION OF CASES

A. **Clinical Description:** A gastrointestinal illness characterized by watery diarrhea that is usually mild and self-limited but can sometimes be prolonged or persistent. EPEC can be transmitted through contaminated food, water, environments, or through contact with infected animals or persons.

B. **Laboratory Criteria:**

- Confirmatory laboratory evidence: Isolation of Enteropathogenic *E. coli* from any clinical specimen.
- Supportive laboratory evidence: Detection of Enteropathogenic *E. coli* from a clinical specimen using a culture-independent diagnostic test (CIDT) such as polymerase chain reaction (PCR).

Note: Culture confirmation of CIDT positive EPEC specimens is not routinely available at the Wisconsin State Laboratory of Hygiene.

C. **Wisconsin Surveillance Case Definition:**

- Confirmed: A case that meets the confirmatory laboratory criteria for diagnosis.
- Probable: A case that meets the supportive laboratory criteria for diagnosis.

D. **Criteria to Distinguish a New Case:**

- A case should not be counted as a new case if laboratory results were reported within 180 days of a previously reported EPEC infection in the same individual.

II. REPORTING

A. **Wisconsin Disease Surveillance Category II:** This disease shall be reported to the local health officer or their designee within 72 hours of the identification of a case or suspected case, per Wis. Admin. Code § [DHS 145.04\(3\)\(b\)](#).

B. **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.

C. **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](#).

D. **Clinical Criteria for Reporting:** None.

E. **Laboratory Criteria for Reporting:** Laboratory evidence of infection by culture or non-culture-based methods. All positive results should be reported.

III. CASE INVESTIGATION

A. **Responsibility for case investigation:** It is the responsibility of the local health department (LHD) to investigate or arrange for investigation of suspected or confirmed cases as resources allow. 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. Routine follow-up interviews with EPEC cases are optional but encouraged when local health departments have the resources available to do so.
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 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. 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.
- C. 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 associating with high-risk individuals.
- D. Exclude symptomatic patients from high-risk settings including food handling, providing patient care or childcare or attending a childcare facility, generally until asymptomatic for 24 hours.
 1. The LHD has the authority to exclude infected individuals in these high-risk settings until evidence of one or more stool specimens, negative for EPEC by CIDT, has been provided. This requirement is most often employed during outbreak situations but may be required during other situations as necessary. If laboratory evidence of clearance is required, stool specimens for clearance (test of cure) should be collected:
 - i. after the individual is asymptomatic AND
 - ii. at least 48 hours after discontinuing of antimicrobial therapy AND
 - iii. at least 24 hours apart, if multiple specimens are collected.

V. CONTACTS FOR CONSULTATION

- A. Local health departments and tribal health agencies:
<https://www.dhs.wisconsin.gov/lh-depts/index.htm>
- B. Bureau of Communicable Diseases, Communicable Diseases Epidemiology Section: 608-267-9003
- C. Wisconsin State Laboratory of Hygiene: 1-800-862-1013

VI. RELATED REFERENCES

- A. Heymann DL, ed. Enteropathogenic *E. coli* (EPEC) In: *Control of Communicable Diseases Manual*. 21st ed. Washington, DC: American Public Health Association, 2022: 171-174.
- B. Pickering LK, ed. *Escherichia coli* Diarrhea In: *Red Book: 2021-2024 Report of the Committee on Infectious Diseases*. 32nd ed. Itasca, IL: American Academy of Pediatrics, 2021: 322-328.
- C. Centers for Disease Control and Prevention website: <https://www.cdc.gov/ecoli/diarrheagenic-ecoli.html>