



Communicable Disease Case Reporting and Investigation Protocol **CRYPTOSPORIDIOSIS**

I. IDENTIFICATION AND DEFINITION OF CASES

- A. **Clinical Description:** A gastrointestinal illness caused by the protozoan *Cryptosporidium spp.* and characterized by profuse watery diarrhea, abdominal cramping, anorexia, low-grade fever, nausea, and vomiting. The disease can be prolonged and life-threatening in severely immunocompromised people.
- B. **Laboratory Criteria:**
- **Confirmatory laboratory evidence:** Evidence of *Cryptosporidium* organisms or DNA in stool, intestinal fluid, tissue samples, biopsy specimens, or other biological sample by certain specific laboratory methods with a high positive predictive value, including:
 - Direct fluorescent antibody (DFA) test;
 - Polymerase chain reaction (PCR);
 - Microplate Enzyme immunoassay (EIA);* OR
 - Light microscopy of stained specimen.
 - **Supportive laboratory evidence:** The detection of *Cryptosporidium* antigen by a screening test method, such as immunochromatographic card/rapid card EIA test, non-microplate EIA,* alternate screening methods, or an unknown laboratory method.

*Microplate EIA tests and non-microplate EIA tests are classified differently because of differences in sensitivity and specificity.

C. **Wisconsin Surveillance Case Definition:**

- **Confirmed:** A case diagnosed with *Cryptosporidium spp.* infection using a laboratory testing method listed in the confirmatory criteria above.
- **Probable:** A case diagnosed with *Cryptosporidium spp.* infection using a method listed in the supportive laboratory criteria above, OR a case of clinically compatible illness that is epidemiologically linked to a confirmed case.

NOTE: Current laboratory reports may make it difficult to determine the specific type of laboratory method used to diagnose cryptosporidiosis. **When the diagnostic test method used cannot be determined from a laboratory test result, the case can only be classified as probable.**

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 infection. 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 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:** 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.
- C. **Additional Investigation Responsibilities**
1. Assess patient for high-risk settings or activities to include food handling, providing patient care or child care, attending a child care facility, or working as a lifeguard or swimming instructor.
 2. Determine if patient swam while symptomatic or in the 14 days after symptom resolution. Any treated recreational water attraction/pool visited during this time should be closed and hyperchlorinated according to the [Centers for Disease Control and Prevention \(CDC\) guidelines](#) to kill *Cryptosporidium*.
 3. Determine whether the case is potentially outbreak-related and 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. Exclude symptomatic patients from high-risk settings including food handling, providing patient care or child care, or attending a child care facility, generally until asymptomatic for 24 hours. The LHD can require one to two negative stool specimens taken at least 24 hours apart if they deem it necessary to protect public health.
- C. Exclude patients diagnosed with cryptosporidiosis from swimming for at least two weeks after diarrhea stops.
- D. 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.
- E. Educate the public about proper handwashing with soap and water after contact with calves, adult cattle, other livestock, or their environment. See the Division of Public Health [Handwashing After Animal Contact](#) fact sheet for more information.
- F. Educate the public on how to prevent infection from ingestion of contaminated water:
- Do not swallow water while swimming in pools, hot tubs, interactive fountains, lakes, rivers, springs, ponds, streams, or the ocean.
 - Do not drink untreated water from lakes, rivers, springs, ponds, streams, or shallow wells.
 - If the safety of drinking water is in doubt (for example, during or after an outbreak, in a place with poor sanitation or lack of water treatment systems, while camping/hiking), do one of the following:
 - Drink bottled water.
 - Disinfect tap water by heating it to a rolling boil for one minute.
 - Use a filter that has been tested and rated by National Safety Foundation (NSF) Standard 53 or NSF Standard 58 for cyst and oocyst reduction; filtered tap water will need additional treatment to kill or weaken bacteria and viruses. Additional information on water treatment methods and filters can be found at https://www.cdc.gov/parasites/crypto/gen_info/filters.html.
- G. Educate the public on effective cleaning and disinfection of contaminated surfaces in the home using hydrogen peroxide. Because *Cryptosporidium* is a chlorine-tolerant parasite, hydrogen peroxide is more effective than bleach solutions. Contaminated surfaces should be soaked for 20 minutes with a 3% hydrogen peroxide (99% kill rate) and then rinsed thoroughly.

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. Cryptosporidiosis. In: *Control of Communicable Diseases Manual*. 20th ed. Washington, DC: American Public Health Association, 2015: 136-139.
- B. Pickering LK, ed. Cryptosporidiosis. In: *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2015: 312-315.
- C. CDC Prevention & Control Measures for Outbreaks at Childcare Facilities:
<http://www.cdc.gov/parasites/crypto/childcare/outbreak.html>.
- D. Division of Public Health Handwashing After Animal Contact fact sheet:
<https://www.dhs.wisconsin.gov/library/p-01699.htm>
- E. CDC Cleaning and Remediation for Residential Pool or Hot tub Owners:
<https://www.cdc.gov/healthywater/swimming/residential/cleaning-remediation.html>
- F. CDC Fecal Incident Response Recommendations for Aquatic Staff:
<https://www.cdc.gov/healthywater/swimming/pdf/fecal-incident-response-guidelines.pdf>