

POLIOVIRUS INFECTION, PARALYTIC

Last Revised July 29, 2011

I. IDENTIFICATION

- A. **CLINICAL DESCRIPTION:** Acute onset of flaccid paralysis of one or more limbs with decreased or absent tendon reflexes in the affected limbs, without other apparent cause, and without sensory or cognitive loss (as reported by a physician).
- The modes of transmission of poliovirus are either from person to person by the fecal-oral route (most common) or infrequently, the respiratory route.
- B. **REPORTING CRITERIA:** Clinical diagnosis.
- C. **LABORATORY CRITERIA FOR CONFIRMATION:**
- Isolation of poliovirus from stool samples (best method), pharyngeal swab specimen or CSF.
 - Presumptive diagnosis may be made by fourfold or greater changes in neutralizing antibody level, between acute and convalescent serum specimens.
- D. **WISCONSIN CASE DEFINITION:** A case that meets the clinical description and in which the patient has a neurologic deficit 60 days after onset of initial symptoms, has died, or has unknown follow-up status.

NOTE: All suspected cases of paralytic poliomyelitis are reviewed by a panel of expert consultants before final classification occurs.

II. ACTIONS REQUIRED / PREVENTION MEASURES

- A. **WISCONSIN DISEASES SURVEILLANCE CATEGORY 1:** Report **IMMEDIATELY BY TELEPHONE** to the patient's local health department upon identification of a confirmed or suspected case. The local health department shall then notify the state epidemiologist **immediately** of any confirmed or suspected cases. Within 24 hours, submit a case report electronically through the Wisconsin Electronic Disease Surveillance System (WEDSS), by mail or fax using an Acute and Communicable Disease Case Report ([F-44151](#)), or by other means.
- B. **EPIDEMIOLOGY REPORTS REQUIRED:**
- *Electronically*—Report through WEDSS, including appropriate disease-specific tabs.
OR
 - *Paper Copy*—Acute and Communicable Disease Case Report ([F-44151](#)) with
 - Suspected Polio Case Worksheet: <http://www.cdc.gov/vaccines/pubs/surv-manual/appx/appendix14-2-polio-wrsht.pdf>
- C. **PUBLIC HEALTH INTERVENTIONS:**
In accordance with Wisconsin Administrative rule DHS 145.05, local public health should follow the methods of control recommended in the current edition of *Control of Communicable Diseases Manual*, edited by David L. Heymann, published by the American Public Health Association.
- Immediately notify Regional Immunization Program Representative.

Wisconsin Division of Public Health Communicable Disease Surveillance Guideline

- Actively search for individuals who that may have been initially diagnosed as having Guillain-Barré Syndrome, polyneuritis, transverse myelitis, etc.

For further detailed information regarding control measures, please see the additional references cited at the end of this document. The Wisconsin Division of Public Health, Immunization Program should also be consulted regarding state-specific guidelines.

D. PREVENTION MEASURES:

Vaccination with inactivated polio vaccine (IPV)

- Children should routinely receive four doses of inactivated polio vaccine (IPV) at ages 2, 4, and 6–18 months and 4–6 years. The final dose in the IPV series should be administered at age > 4 years regardless of the number of previous doses. The minimum interval between dose 3 and dose 4 is 6 months.
- Routine poliovirus vaccination of adults (i.e., persons aged >18 years) residing in the United States is not necessary. Most adults have a minimal risk for exposure to polioviruses in the United States and most are immune as a result of vaccination during childhood or exposure to wild virus during the pre-vaccine era.
- Vaccination is recommended for adults who are at greater risk for exposure to polioviruses than the general population, including the following persons:
 - Travelers to areas or countries where polio is epidemic or endemic.
 - Members of communities or specific population groups with disease caused by wild polioviruses.
 - Laboratory workers who handle specimens that might contain polioviruses.
 - Health-care workers who have close contact with patients who might be excreting wild polioviruses.
 - Unvaccinated adults whose children will be receiving oral poliovirus vaccine.

III. CONTACTS FOR CONSULTATION

A. LOCAL HEALTH DEPARTMENT – REGIONAL OFFICES – TRIBAL AGENCIES:

<http://www.dhs.wisconsin.gov/localhealth/index.htm>

B. REGIONAL IMMUNIZATION PROGRAM REPRESENTATIVES:

<http://www.dhs.wisconsin.gov/immunization/regiondepts.htm>

C. BCDER/ IMMUNIZATION PROGRAM: (608) 267-9959

D. WISCONSIN STATE LABORATORY OF HYGIENE

Communicable Disease Division

Customer Service: (800) 862-1013 or (608) 262-6386

Clinical Supplies: (800) 862-1088 or (608) 265-2966

IV. RELATED REFERENCES

- Heymann DL, ed. *Control of Communicable Diseases Manual*. 19th ed. Washington, DC: American Public Health Association, 2008:484-491
- Pickering LK, ed. Poliovirus Infections. In: *Red Book: 2009 Report of the Committee on Infectious Diseases*. 28th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2009:541-545

Wisconsin Division of Public Health Communicable Disease Surveillance Guideline

- Atkinson W, ed. Rubella. In: *Epidemiology and Prevention of Vaccine-Preventable Diseases*. 12th ed. Washington DC: Public Health Foundation, 2011: 249-261.
<http://www.cdc.gov/vaccines/pubs/pinkbook/pink-chapters.htm>
- Centers for Disease Control and Prevention. Manual for the surveillance of vaccine-preventable diseases. Centers for Disease Control and Prevention, Atlanta, GA, 2008
<http://www.cdc.gov/vaccines/pubs/surv-manual>
- Updated Recommendations of the Advisory Committee on Immunization Practices (ACIP) regarding routine poliovirus vaccination, MMWR 2009; 58(30); 829-830
- Poliomyelitis Prevention in the United States, MMWR 2000; 49 (RR-05):1-22