



## Communicable Disease Case Reporting and Investigation Protocol **TETANUS**

### I. IDENTIFICATION AND DEFINITION OF CASES

- A. **Clinical Description:** Tetanus is an acute, potentially fatal disease that is characterized by generalized, increased rigidity and convulsive spasms of skeletal muscles. Tetanus is caused by the spore-forming bacterium *Clostridium tetani*. *C. tetani* spores (the dormant form of the organism) are found in soil and in animal and human feces. The spores enter the body through breaks in the skin, and germinate under low-oxygen conditions. Puncture wounds and wounds with a significant amount of tissue injury are more likely to promote germination. The organisms produce a potent toxin tetanospasmin, which is absorbed into the bloodstream. The toxin then reaches the nervous system, causing painful and often violent muscular contractions. The muscle stiffness usually first involves the jaw (lockjaw) and neck, and later becomes generalized. Tetanus is a noncommunicable disease—it is not transmitted from one person to another.
- B. **Laboratory Criteria:** There is no diagnostic laboratory test for tetanus; the diagnosis is entirely clinical.
- C. **Wisconsin Surveillance Case Definition: Probable**—A clinically compatible case, as reported by a health care professional.

### 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:** Clinically compatible illness. Cases should be reported immediately upon consideration of tetanus in the differential diagnosis.
- D. **Laboratory Criteria for Reporting:** There are no laboratory criteria for reporting.

### 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:**
1. Complete the WEDSS disease incident investigation report, including appropriate, disease-specific tabs.
  2. Upon completion of investigation, set WEDSS disease incident process status to “Sent to State.”
- C. **Additional Investigation Responsibilities**
1. Contact your Immunization Program Regional Representative:  
<https://www.dhs.wisconsin.gov/lh-depts/counties.htm>
  2. Investigate case to determine circumstances of the wound and history of tetanus vaccination.

#### 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. Vaccination with tetanus toxoid-containing vaccine:
  1. Children aged 6 weeks through 6 years should be routinely immunized with DTaP (diphtheria toxoid, tetanus toxoid, and acellular pertussis vaccine). The primary series of four doses should be received at 2, 4, 6 and 15-18 months of age. A booster dose is recommended at school entry (age 4 to 6 years).
  2. Persons aged  $\geq 7$  years should receive a tetanus toxoid booster as Td (tetanus toxoid, diphtheria toxoid) every 10 years.
  3. A one-time dose of Tdap vaccine (tetanus toxoid, diphtheria toxoid, acellular pertussis vaccine) should be substituted for Td if the individual has not previously received a dose of Tdap (routinely administered at age 11-12 years). Note that Tdap is preferred if protection against pertussis is needed (i.e., has not received Tdap previously or is pregnant and between 27 and 36 weeks gestation, though Tdap may be given at any time during pregnancy). Tdap can be administered regardless of time since receipt of last tetanus- or diphtheria-containing vaccine.
- C. Educate all individuals involved with case about the importance of preventing tetanus by keeping up to date with booster vaccinations.

#### V. CONTACTS FOR CONSULTATION

- A. Local health departments and tribal health agencies: <https://www.dhs.wisconsin.gov/lh-depts/index.htm>
- B. Regional Immunization Program representatives: <https://www.dhs.wisconsin.gov/lh-depts/counties.htm>
- C. Bureau of Communicable Diseases, Immunization Program: 608-267-9959. After hours number 608-258-0099.
- D. Wisconsin State Laboratory of Hygiene: 1-800-862-1013. After hours emergency number 608-263-3280.

#### VI. RELATED REFERENCES

- A. Heymann DL, ed. Tetanus. In: *Control of Communicable Diseases Manual*. 20th ed. Washington, DC: American Public Health Association, 2015: 607-613.
- B. Pickering LK, ed. Tetanus. In: *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2015: 773-778.
- C. Centers for Disease Control and Prevention. Epidemiology and Prevention of Vaccine-Preventable Diseases. Hamborsky J, Kroger A, Wolfe S, eds. 13<sup>th</sup> ed. Washington D.C. Public Health Foundation, 2015.
- D. Centers for Disease Control and Prevention. Manual for the Surveillance of Vaccine-Preventable Diseases Tetanus. Retrieved July 24, 2017 from <https://www.cdc.gov/vaccines/pubs/surv-manual/chpt16-tetanus.html>
- E. Centers for Disease Control and Prevention. Tetanus Surveillance Worksheet. Retrieved July 24, 2017, from <https://www.cdc.gov/vaccines/pubs/surv-manual/appx/appendix18-2-tet-wsht.pdf>
- F. Wisconsin Immunization Program Tetanus webpage: <https://www.dhs.wisconsin.gov/immunization/tetanus.htm>