

TETANUS QUICKSHEET



CLINICAL ILLNESS

GENERALIZED TETANUS

The disease usually presents with a descending pattern. The first sign is trismus, or lockjaw, followed by stiffness of the neck, difficulty in swallowing, and rigidity of abdominal muscles. Other symptoms include elevated temperature, sweating, elevated blood pressure, and episodic rapid heart rate.

LOCALIZED TETANUS

Uncommon form of the disease in which patients have persistent contraction of muscles in the same anatomic area as the injury.

CEPHALIC TETANUS

Rare form of the disease, occasionally occurring with otitis media in which *Clostridium tetani* is present in the flora of the middle ear or following injuries to the head. There is involvement of the cranial nerves, especially in the facial area.

NEONATAL TETANUS

A form of generalized tetanus that occurs in newborn infants. Neonatal tetanus occurs in infants born without protective passive immunity because the mother is not immune. It usually occurs through infection of the unhealed umbilical stump, particularly when the stump is cut with an unsterile instrument. In neonatal tetanus, symptoms usually appear from 4 to 14 days after birth, averaging about 7 days.

COMPLICATIONS

- Laryngospasm
- Fractures
- Hypertension and/or abnormal heart rhythm
- Nosocomial infections
- Pulmonary embolism
- Aspiration pneumonia
- Death

ETIOLOGIC AGENT

Clostridium tetani (bacteria)

RESERVOIR

- Soil and intestine of animals and humans

TRANSMISSION

- Contaminated wounds

INCUBATION PERIOD

8 days (range, 1 to 21 days)

Tetanus Toxoid-containing Vaccines

- DT
- DTaP (Daptacel and Infanrix)
- Td (Tdvax and Tenivac)
- Tdap (Adacel and Boostrix)
- DTaP-HepB-IPV (Pedarix)
- DTaP-IPV/Hib (Pentacel)
- DTaP-IPV (Kinrix and Quadracel)
- DTaP-IPV-Hib-HepB (Vaxelis)

KENTUCKY TETANUS OCCURRENCE

MMWR Year	2015	2016	2017	2018	2019	2020	2021	2022
Probable Case Count	0	1	0	1	1	0	0	4

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CASE CLASSIFICATION

PROBABLE CASE

- In the absence of a more likely diagnosis, an acute illness with
- muscle spasms or hypertonia, **AND**
- diagnosis of tetanus by a health care provider;

OR

- Death, with tetanus listed on the death certificate as the cause of death or a significant condition contributing to death

CONFIRMED CASE

There is no definition for "confirmed" tetanus.

LABORATORY CRITERIA

There is no laboratory criteria for tetanus.

CASE INVESTIGATION

1. Confirm that clinical picture meets the case definition.

2. Collect:

a. Demographic information

- i. For neonatal cases, maternal country or origin and number of years of residence in the United States

b. Reporting source

c. Clinical Picture

i. Hospitalization and duration of stay

ii. Date of onset of symptoms

iii. Type of tetanus disease

iv. Wound location and management, including receipt of a tetanus toxoid-containing vaccine or TIG

v. Complication and intensive care treatment

vi. Pre-existing conditions (e.g., diabetes, chronic otitis media, immunosuppression)

vii. Outcome (patient survived or died); Date of death if deceased

1. In the event of a death, copies of the hospital discharge summary, death certificate, and autopsy report should also be sent to KDPH

3. Determine vaccination status of the case.

a. Dates of vaccination (prior tetanus toxoid-containing vaccine history)

b. Number of doses of tetanus toxoid-containing vaccine received prior to infection

c. Time since last dose of tetanus toxoid-containing vaccine

d. Maternal vaccination (for neonatal cases)

4. Follow-up with the status of the case until death or resolution of symptoms (e.g., mechanical ventilation no longer needed)

The [Tetanus Surveillance Worksheet](#) may be used as a guideline for the investigation



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GUIDE TO TETANUS PROPHYLAXIS IN ROUTINE WOUND MANAGEMENT

History of Adsorbed Tetanus Toxoid (Doses)	Clean, Minor Wounds		All other Wounds*	
	Tdap, or Td~	TIG^	DTaP, Tdap, or Td~	TIG^
Fewer than 3 or unknown	Yes	No	Yes	Yes
3 or more	No (Yes, if ≥10 years since the last tetanus toxoid-containing vaccine dose)	No	No (Yes, if ≥5 years since the last tetanus toxoid-containing vaccine dose)	No

Tdap indicates booster tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine; DTaP, diphtheria and tetanus toxoids and acellular pertussis vaccine; Td, adult-type diphtheria and tetanus toxoids vaccine; TIG, Tetanus Immune Globulin (human)

*Such as, but not limited to, wounds contaminated with dirt, feces, soil, and saliva; puncture wounds; avulsions; and wounds resulting from missiles, crushing, burns, and frostbite

~DTaP is used for children younger than 7 years of age. Tdap is preferred over Td for persons 11 years of age and older who have not previously received Tdap. Persons 7 years of age and older who are not fully immunized against pertussis, tetanus, or diphtheria should receive 1 dose of Tdap for wound management and as part of the catch-up series

^Individuals with HIV infection or severely immunodeficiency who have contaminated wounds should also receive TIG, regardless of their history of tetanus immunizations

CONTROL MEASURES

- The best method for controlling tetanus is preventing tetanus through active immunization with adsorbed tetanus toxoid; combined Tetanus-diphtheria-pertussis vaccine (Tdap) is recommended
- Tdap is recommended for universal use above age seven, especially for persons employed in occupations which put them in contact with soil, sewage, or domestic animals; military personnel, policeman, firefighters, and others with greater than usual risk of traumatic injury; the elderly; and international travelers
- Children under seven should receive DTaP according to current ACIP recommendations