MEMORANDUM

To: Local Health Department Health Directors

From: Wendy Holmes, Head North Carolina Immunization Program (NCIP)

Date: October 4, 2018

Subject: Use of State-supplied Tetanus and Diphtheria (Td) and Tetanus Diphtheria Acellular Pertussis (Tdap) Vaccine Supplied in Response to Hurricane Florence

The purpose of this memo is to provide guidance to Local Health Departments (LHDs) for the use of state supplied Td or Tdap vaccine in response to Hurricane Florence. The NCIP will provide Td or Tdap vaccine for emergency response workers and individuals at increased risk for tetanus due to puncture wounds and/or exposure to flooding.

Per the Centers for Disease Control and Prevention (CDC), the risk for injury during and after a natural disaster is high. Tetanus is a potential serious health threat for persons who sustain wound injuries but is virtually 100% preventable with vaccination.

After a series of tetanus shots during childhood and adolescence, the Advisory Committee on Immunization Practices (ACIP) recommends Td boosters routinely every ten years for all adults. To ensure protection, a person with a puncture or deep wound should get a tetanus booster if it has been five or more years since their last tetanus-containing vaccine.

Guidelines for the Use of State-Supplied Td or Tdap Vaccine in Hurricane Florence Relief Efforts

- Disaster survivors and emergency response workers (regardless of insurance status) are eligible to receive state-supplied Td/Tdap vaccine at LHDs across NC, according to CDC/ACIP guidelines (see attached)
- Vaccine administration fees should be waived for anyone receiving the vaccine as part of Hurricane Florence relief efforts
- Standing orders should reflect current CDC/ACIP guidelines. Requests for Td/Tdap not covered under routine standing orders will require an order from a provider
- If an individual has previously received Tdap and needs a booster dose of Td, it is acceptable to administer Tdap if Td is not available

Ordering/Reporting Doses Used for Hurricane Florence Relief Efforts

- For areas with a local Emergency Operation Center (EOC) still in place, please contact the EOC directly for Td/Tdap vaccine requests.
- For local health departments that are open and able to operate and store/handle vaccine(s) under proper storage conditions should place orders for Td/Tdap in the North Carolina Immunization Registry (NCIR). When placing vaccine orders for Hurricane Florence efforts, please add the following comment on the vaccine order screen, “Hurricane Florence” under the “Vaccine Delivery Updates/Special Instructions box.”
- All doses administered must be entered into the NCIR per the NCIP Local Health Department Vaccine Agreement.

If you have questions regarding how to order vaccine related to Hurricane Florence, please contact the NCIR Help Desk at 1-877-873-6247 and choose option 1 or 2. For Storage and Handling questions, call 919-707-5574 and for the Nurse On-call Line, call 919-707-5575.

cc: NC Communicable Disease Branch
CDC Tetanus Vaccine Recommendations for Individual After a Natural Disaster

Tetanus: In accordance with the current CDC guidelines, Disaster Responders should receive a tetanus booster if they have not been vaccinated for tetanus during the past 10 years. Td (tetanus/diphtheria) or Tdap (tetanus/diphtheria/pertussis) can be used; getting the Tdap formula for one tetanus booster during adulthood is recommended to maintain protection against pertussis. While documentation of vaccination is preferred, it should not be a prerequisite to work.

For citizens that were exposed to unsanitary conditions during or after the storm and those planning to return to their homes in the disaster area, they should get a booster dose of a tetanus vaccine if they have not had a booster dose within the last 10 years. Tetanus-diphtheria (Td) boosters are routinely recommended every 10 years for all adults; the concern in this setting is that clean-up and repairs present an increased risk of injury and tetanus from such injuries is preventable by vaccination. Adults should receive the pertussis-containing Tdap vaccine rather than Td if this is available and has not been previously received. Children and adolescents 11 through 18 years should receive the pertussis-containing Tdap vaccine rather than Td if this is available.

In addition to this CDC/ACIP have guidance for Wound Management for Tetanus Prevention.

Risk of tetanus disease depends on the type and condition of the wound and immune status of the patient. The following steps should be taken to prevent tetanus:

- **Assess the type of wound and provide appropriate wound care.** Wounds may be clean or contaminated and dirty, superficial or deep and penetrating. Dirty wounds pose an increased risk for tetanus. Wounds should be considered dirty if contaminated with dirt, soil, feces, or saliva (e.g., animal or human bites). Penetrating or puncture wounds are considered contaminated and may pose a higher risk for tetanus. Wounds containing devitalized tissue (e.g., necrotic or gangrenous wounds), frostbite, crush injuries, avulsion fractures, and burns are particularly conducive for proliferation of *C. tetani*. All wounds should be cleaned, dirt or foreign material removed, and necrotic material removed or debrided.

- **Evaluate the immunization status of the patient.** Unvaccinated persons should start and complete a primary series with an age-appropriate tetanus toxoid-containing vaccine (DTaP, Tdap, or Td) as currently recommended by CDC. Persons with unknown or uncertain history of receiving previous prior doses tetanus toxoid-containing vaccines should be considered to have had no previous tetanus toxoid-containing vaccine and a primary series should be completed. This is because early doses of toxoid may not induce adequate immunity, but only prime the immune system. Persons who have completed a 3-dose primary tetanus vaccination series:
  - If the last dose of a tetanus toxoid-containing vaccine was received less than 5 years earlier, they are considered protected against tetanus and do not require another dose of tetanus toxoid-containing vaccine as part of the current wound management.

- **Assess need for administering TIG for prophylaxis.** TIG provides temporary immunity by directly providing antitoxin. TIG can only help remove unbound tetanus toxin but cannot neutralize toxin that is already bound to nerve endings. Persons who have contaminated and dirty wounds and are either unvaccinated or have not received a primary series of tetanus toxoid-containing vaccines should receive TIG for prophylaxis. The dose of TIG for prophylaxis is 250 IU administered intramuscularly. People with HIV infection or severe immunodeficiency who have contaminated wounds (including minor wounds) should also receive TIG, regardless of their history of tetanus immunizations.

- **Do not use antibiotics for prophylaxis against tetanus.** Antibiotic prophylaxis against tetanus is not recommended, but wounds should be observed for signs of infection and promptly treated if signs of infection are detected.
Guide to Tetanus Prophylaxis with TIG in Routine Wound Management

<table>
<thead>
<tr>
<th>History of adsorbed tetanus toxoid-containing vaccines (doses)</th>
<th>Clean, minor wound</th>
<th>All other wounds*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unknown or &lt;3</strong></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>≥3</strong></td>
<td>No(^\d)</td>
<td>No</td>
</tr>
</tbody>
</table>

* 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 recommended for children <7 years of age. Tdap is preferred to Td for persons aged 11 years or older who have not previously received Tdap. Persons aged 7 years or older who are not fully immunized against pertussis, tetanus, or diphtheria should receive one dose of Tdap for wound management and as part of the catch-up series.

‡ People with HIV infection or severe immunodeficiency who have contaminated wounds (including minor wounds) should also receive TIG, regardless of their history of tetanus immunizations.

§ Yes, if ≥10 years since the last tetanus toxoid-containing vaccine dose.

¶ Yes, if ≥5 years since the last tetanus toxoid-containing vaccine dose.

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**Abbreviations:**

- DTaP = Diphtheria and Tetanus toxoids and acellular pertussis vaccine
- Tdap = tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis
- Td = tetanus and diphtheria toxoids
- TIG = Tetanus Immune Globulin

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[https://www.cdc.gov/tetanus/clinicians.html#wound-management](https://www.cdc.gov/tetanus/clinicians.html#wound-management)