**Protocol for Administration of Tetanus Diphtheria and
Tetanus Diphtheria Acellular Pertussis (Td/Tdap) Vaccines**

**Children Aged 7 Years and Older and Adults**

**Precautions and Contraindications**

Screen all patients for precautions and contraindications to immunization.

**Recommended Routine Schedule**

**Td/Tdap Vaccine Schedule for Children Aged 7 Years and older, unless a contraindication**

|  |  |  |
| --- | --- | --- |
| **Vaccine** | **Recommended Age** | **Schedule** |
| Td | 7 years of age | May be used for age 7 years and older not receiving previous doses of DTaP, DT, or Td for the primary series. Tdap is preferred as first dose if not fully vaccinated. |
| Tdap/Td | 11 through 12 years of age | 1st booster dose, administer Tdap vaccine. Thereafter, administer Td every 10 years. |

**Recommended Immunization Schedule for Persons Aged 7 through 18 years**

**For those who fall behind or start late, see the Catch-up Schedule**

**Vaccine:**  **Tetanus, Diphtheria or Tetanus, Diphtheria, Pertussis (Td/Tdap)**

* For children aged 7 through 10 years of age who are not fully vaccinated against pertussis (i.e., 5 doses of DTaP vaccine or 4 doses of DTaP vaccine if the fourth dose was administered on or after the fourth birthday) and for whom no contraindication to pertussis vaccine exists, administer one dose of Tdap vaccine. If additional doses of tetanus- and diphtheria- toxoid containing vaccines are needed in the catch-up series, use Td vaccine, according to the catch-up immunization schedule. Children who receive Tdap vaccine when aged 7 through 10 years (as part of the catch up series) may be given an additional Tdap for the routine recommended adolescent dose when aged 11 through 12 years of age. Td vaccine should next be given 10 years after receiving Tdap vaccine.
* Administer one dose of Tdap vaccine to adolescents aged 11 through 18 years who have completed the recommended childhood DTaP/ DTP vaccination series. Td booster doses should be administered every 10 years, thereafter. Tdap vaccine can be administered regardless of the interval since the last tetanus- or diphtheria-toxoid containing vaccine.

\*ACIP Recommendations for children 7 to 9 years of age differ from the package inserts. [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6001a4.htm](https://www.gsksource.com/pharma/content/dam/GlaxoSmithKline/US/en/Prescribing_Information/Hiberix/pdf/HIBERIX.PDF)

**Catch-Up Schedule for Persons Aged 7 through 18 Years
Who Start Late or Who Are More Than 1 Month Behind**

**Vaccine: Tetanus, Diphtheria (Td) or Tetanus, Diphtheria Acellular Pertussis (Tdap).**
See the “Catch-up immunization schedule for persons aged 4 months through 18 years who start late or who are more than 1 month behind— United States, 2014” for more information, [http://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf](http://www.cdc.gov/vaccines/schedules/downloads/adult/adult-combined-schedule.pdf).

* An inadvertent dose of DTaP vaccine administered to children aged 7 through 10 years may count as part of the catch-up series. This dose can count as the adolescent Tdap dose, or the child can later receive a Tdap booster at age 11 through 12 years.
* An inadvertent dose of DTaP vaccine administered to an adolescent aged 11 through 18 years may count as part of the catch-up series. This dose should be counted as the adolescent Tdap dose.
* Children aged 7 through 10 years who are not fully immunized with the childhood DTaP vaccine series, should receive Tdap vaccine as the first dose in the catch-up series. They may be given an additional Tdap for the routinely recommended adolescent dose at 11-12 years of age. Td should be administered 10 years after the Tdap dose.
* Those persons aged 7 through 18 years who were never vaccinated against tetanus, diphtheria, or pertussis or who have unknown vaccination status should receive a series of three vaccinations containing tetanus and diphtheria toxoids. The first of these three doses should be a single dose of Tdap vaccine.
* The information below provides catch-up schedules and minimum intervals for children whose vaccinations have been delayed. A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Tdap vaccine should be substituted for a single dose of Td vaccine in the catch-up series.
* Administer Tdap as dose 1 at a minimum age of 7 years.
* Administer Td as dose 2 with a minimum interval of 4 weeks between
dose 1 to dose 2
* Administer Td as dose 3 with a minimum interval between dose 2 to dose 3 of:
	+ 4 weeks**,** if first dose of DTaP/DT was administered at younger than age 12 months
	+ 6 months, if first dose of DTaP/DT was administered at age 12 months or older and then no further doses are needed for catch-up
* For some children, administer Td as dose 4 with a minimum interval between dose 3 to dose 4 of 6 months, if first dose of DTaP/DT was administered at younger than age 12 months.

\*ACIP Recommendations for children aged 7 through 9 years of age differ from the package inserts. [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6001a4.htm](http://dx.doi.org/10.15585/mmwr.mm6636a5).

**Additional Information**

**Preventing Spread of Pertussis to Infants by Vaccinating Their Adolescent Contacts:** Administer a single dose of Tdap to adolescents (e.g., parents, siblings, child-care providers, and health care personnel) who have or anticipate having close contact with an infant aged less than 12 months, if they have not received Tdap previously, and ideally at least 2 weeks before beginning close contact with the infant. Tdap can be administered regardless of the interval since the last tetanus or diphtheria toxoid containing vaccine.

**During Pertussis Outbreaks:** Administer a single dose of Tdap vaccine to children and adolescents aged 10 through 18 years who have never received Tdap vaccine.

**Primary Vaccination Series for Persons Aged**

**19 Years and Older**

**Vaccine: Tetanus, Diphtheria (Td) or Tetanus, Diphtheria Acellular Pertussis (Tdap) \***

(Substitute a single dose of Tdap vaccine for any of the Td doses)

* Administer dose 1 at a minimum age of 19 years.
	+ BOOSTRIX® is licensed for use in individuals aged 10 years and older**.**
	+ ADACEL®is licensed for use in individuals aged 10 through 64 years**.** \*\*
* Administer dose 2 at a minimum interval of 4 weeks between dose 1 to dose 2
* Administer dose 3 at a minimum interval of 6 months through 12 months between
dose 2 to dose 3

Footnotes:

\*Adults with an unknown or incomplete history of a complete primary vaccination series with tetanus- and diphtheria-toxoid--containing vaccines should begin or complete a primary vaccination series. A primary series for adults is 3 doses of tetanus- and diphtheria-toxoid containing vaccines; administer the first 2 doses at least 4 weeks apart and the third dose 6 through 12 months after the second. However, a single dose of Tdap can substitute for any one of the doses of Td in the
3-dose primary series. For incompletely vaccinated adults (i.e., less than 3 doses), administer the remaining doses. The booster dose of tetanus- and diphtheria-toxoid containing vaccine should be administered to adults who have completed a primary series and if the last vaccination was received 10 or more years previously. Tdap is preferred for the first booster dose, but Td vaccine may be used. **Td vaccine should next be given 10 years after receiving Tdap vaccine except for pregnant women who should receive a dose of Tdap during each pregnancy**. For adults who have not received Tdap previously, Tdap can be administered regardless of interval since the most recent tetanus- or diphtheria-toxoid containing vaccine.

\*\*ACIP Recommendations in 2012 stated that either Tdap vaccine brand may be used for adults aged 65 years and older, [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6125a4.htm](http://www.merck.com/product/usa/pi_circulars/g/gardasil_9/gardasil_9_pi.pdf).

**Recommended Immunization Schedule for Adults with a
Complete Primary Vaccination Series with Tetanus- and Diphtheria-Toxoid Containing Vaccines**

**Vaccine:**  **Tetanus, Diphtheria and Tetanus, Diphtheria Pertussis (Td/Tdap)**

* Adults aged 19 years and older: Administer a single dose of Tdap vaccine to all adults who have not previously received Tdap or for whom vaccine status is unknown. Tdap can be administered regardless of the interval since the last tetanus- or diphtheria-toxoid containing vaccine. \*
* Adults aged 19 years and older: Administer 1 dose of Td booster every 10 years (substitute a 1 time dose of Tdap vaccine for Td)
* Pregnancy: Administer one dose of Tdap vaccine during each pregnancy for adolescents aged 11 through 18 years and for adults aged 19 years and older, regardless of the patient’s prior history of receiving Tdap or Td vaccine.
* Adult contacts and caregivers of infants: Administer a single dose of Tdap vaccine to adult household contacts and caregivers of infants less than 12 months who have never received Tdap vaccine, regardless of the interval since the last tetanus or diphtheria toxoid containing vaccine.
* Health care personnel: Administer a single dose of Tdap vaccine to health care workers who have direct patient contact who have never received Tdap vaccine, regardless of the interval since the last tetanus or diphtheria toxoid containing vaccine.
* Age appropriate doses of Td/Tdap may be indicated for adults with the following special indications:
	+ Immunocompromising conditions (e.g. those caused by human immunodeficiency virus (HIV) infections, medications, radiation)
	+ Diabetes, heart disease, chronic pulmonary disease, chronic alcoholism
	+ Asplenia (including elective splenectomy and terminal complement component deficiencies)
	+ Chronic liver disease
	+ Kidney failure, end-stage renal disease, receipt of hemodialysis

**\***Footnote:

Administer a single dose of Tdap to adults (e.g., parents, siblings, grandparents, child-care providers, and health care personnel) who have or anticipate having close contact with an infant aged less than 12 months, if they have not previously received Tdap and ideally at least 2 weeks before beginning close contact with the infant. Tdap can be administered regardless of the interval since the last tetanus or diphtheria toxoid containing vaccine.

**Td/Tdap - Adults with a Complete Primary Vaccination Series with
Tetanus- and Diphtheria-toxoid Containing Vaccines
(Additional Information)**

**Health-care personnel**: Health-care personnel in hospitals or ambulatory care settings who have direct patient contact should receive a single dose of Tdap as soon as feasible if they have not previously received Tdap. Tdap can be administered regardless of the interval since the last tetanus or diphtheria toxoid containing vaccine. Pregnant health care personnel need to get repeat doses during each pregnancy, preferably early in the 27 through 36 weeks gestation period, regardless of number of years since prior Td or Tdap. All healthcare personnel should then receive Td boosters every 10 years thereafter.

**Pregnant Women**:

* **Pregnant women and pertussis vaccination**. *Administer one dose of Tdap vaccine during each pregnancy for adolescents aged 11 through 18 years and for adults aged 19 years and older, regardless of the interval since prior Tdap or Td vaccination.* Tdap should preferably be administered early in the 27 through 36 week gestation period (to maximize passive antibody transfer to the infant).
* **Routine post-partum Tdap:** Pregnant women who previously have not received a dose of Tdap (including women who are breastfeeding) should receive Tdap immediately after delivery. If Tdap cannot be administered immediately after delivery, it should be given before discharge from the hospital or birthing center. If Tdap cannot be administered before discharge, it should be given as soon as feasible. The dose of Tdap replaces the next decennial dose of Td.
* **Pregnant women due for a tetanus booster:** A Tdap booster vaccination is indicated during each pregnancy and should be administered early in the 27 through 36 week gestation period (to maximize passive antibody transfer to the infant).
* **Wound management for pregnant women:** As part of standard wound management care to prevent tetanus, a tetanus toxoid-containing vaccine might be recommended for wound management in a pregnant woman if 5 years or more have elapsed since last receiving Td. If a Td booster is indicated for a pregnant woman, Tdap should be administered.
* **Pregnant women with unknown or incomplete tetanus vaccination:** Administer three vaccinations containing tetanus and reduced diphtheria toxoids at 0, 4 weeks, and 6 through 12 months. Tdap should replace one dose of Td, preferably early in the 27 through 36 week gestation period (to maximize passive antibody transfer to the infant).

**Simultaneous administration**: Tdap can be administered with other vaccines that are indicated. Each vaccine should be administered using a separate syringe at a different anatomic site.

**Preventing Spread of Pertussis to Infants by Vaccinating Their Adult Contacts:**

Administer a single dose of Tdap vaccine to adult household contacts and caregivers of infants aged less than 12 months (e.g., parents, grandparents, adult household members, childcare providers, health care personnel, etc.). Tdap can be administered regardless of the interval since the last tetanus or diphtheria toxoid containing vaccine.

**During Pertussis Outbreaks:** Administer a single dose of Tdap vaccine to persons 19 years of age and older who have never received Tdap vaccine. Tdap can be administered regardless of the interval since the last tetanus or diphtheria toxoid containing vaccine.

**Wound Management and Tetanus-containing Vaccines
(Ages 7 years and older)**

 **Antibiotic prophylaxis against tetanus is neither practical nor useful in managing wounds; proper immunization plays the more important role.**

* **Clean Minor Wounds:**
* **Immunization history is unknown or less than 3 doses of a tetanus-containing vaccine**
	+ **Children and adolescents, 7 through 18 years of age**
		- Administer Tdap (one time dose, preferably the first dose in the catch-up series). If additional doses are needed, use Td vaccine as recommended in the catch-up immunization schedule. Schedule follow-up visits to complete the primary immunization series for tetanus containing vaccines
		- For children 7 through 10 years who receive a dose of Tdap as a part of the catch-up series, an adolescent Tdap vaccine dose at age 11 through 12 years may be administered. Td vaccine should be administered instead 10 years after the Tdap dose.
	+ **Adults, 19 years of age and older**
		- Administer Tdap (one time dose) or Td. Schedule follow-up visits to complete the primary immunization series for tetanus containing vaccines.
* **Immunization history is known for a complete primary series** (i.e. three or more doses of DTaP, DT, Tdap, or Td):
	+ No tetanus-containing vaccine dose is needed if it has been less than 10 years since the last tetanus-containing vaccine dose.
* Administer Tdap (one time dose) or Td if it has been 10 or more years since the last tetanus-containing vaccine dose. Tdap is preferred for those persons who have not received Tdap previously. Administer Td to those individuals who have previously received Tdap.
**All Other Wounds** (Such as, but not limited to, wounds contaminated with dirt, feces, soil, and saliva; puncture wounds e.g. stepping on a tack or a rusty nail; avulsions; and wounds resulting from missiles, crushing, burns, and frostbite)**. Patients whose wounds require extensive cleaning because of dirt or need surgical debridement because of devitalized tissue or foreign material should be referred to the nearest emergency room.**
* **Immunization history is unknown or less than 3 doses of a tetanus-containing vaccine** - REFER PATIENT TO THE NEAREST EMERGENCY ROOM OR THEIR PRIVATE PHYSICIAN, as these patients need both a tetanus-containing vaccine and Tetanus Immune Globulin (TIG) administered by the same provider.
* **Immunization history is known for a complete primary series** (i.e., three or more doses of DTaP, DT, Tdap, or Td):
	+ No tetanus-containing vaccine dose is needed if it has been less than 5 years since the last tetanus-containing vaccine dose.
	+ Administer Tdap (one time dose) or Td if it has been 5 or more years since the last tetanus containing vaccine dose. Tdap is preferred for those persons who have not received Tdap previously. Administer Td to those individuals who have previously received Tdap.
* \*ACIP Recommendations for Tdap administration of children 7 to 9 years of age differ from the package insert. [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6001a4.htm](http://www.cdc.gov/vaccines/programs/vfc/downloads/resolutions/02-13-1-pneumo.pdf)

**Dosage and Route**

**Shake vial well before withdrawing each dose**. Discard vial of vaccine if it cannot be resuspended.

Give Td / Tdap vaccine 0.5 mL intramuscularly (IM).

Shake the vial well to distribute the suspension uniformly before withdraw**i**ng for administration. (Do not use if resuspension does not occur with vigorous shaking.)

**Always check the package insert prior to administration of any vaccine**.

**Anatomical Site**

The preferred site is into the deltoid muscle. The vaccine should not be injected into the gluteal area or areas where there is a major nerve trunk.

**Precautions**

* Patient’s current health status and medical history should be reviewed in order to determine whether any contraindications exist and to assess the benefits and risks of vaccination.
* If Td or Tdap vaccine is administered to immunocompromised persons, including persons receiving immunosuppressive therapy, the expected immune response may not be obtained.

**Contraindications**

Individuals with:

* Anaphylactic reaction to previous dose of Td, Tdap, any other tetanus-toxoid,
diphtheria-toxoid or pertussis containing vaccine, to latex, or to any other component of the vaccine (see package insert for specific components).
* Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures) not due to another identifiable cause within 7 days of previous dose of DTP or DTaP.

**Adverse Events** – See the product’s package insert

**Storage and Handling**

* Store in refrigerator at 36oF – 46oF (2oC – 8oC)
* DO NOT FREEZE; discard if product has been frozen.

**Notes:**

FDA lowered the age of licensure for Adacel vaccine administration from age 11 years to 10 years in March 2014,” <http://www.immunize.org/express/issue1114.asp> and <http://www.fda.gov/BiologicsBloodVaccines/Vaccines/ApprovedProducts/ucm392016.htm>.

The minimum age of 10 years for administration of both Adacel and BOOSTRIX is described in the “Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger, UNITED STATES, 2017”:

<https://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf>

**References:**

Immunization Action Coalition (IAC): Needle Tips: ACIP Votes to Update Recommendations for HPV, Tdap, MenB and HepB Vaccines; Volume 26-Number 4; December 2016.

MMWR “Updated Recommendations for Use of Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis (Tdap) Vaccine from the Advisory Committee on Immunization Practices, 2010.” January 14, 2011/60(01); 13-15

[http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6001a4.htm](http://www.immunize.org/askexperts/experts_hpv.asp)

“Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger, UNITED STATES, 2017”:

[https://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf](http://www.cdc.gov/vaccines/programs/vfc/downloads/resolutions/2016-10-3-mening.pdf)

CDC Immunization of Health-Care Personnel: Recommendations of the ACIP
MMWR, 2011; 60(RR-7), [http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6007a1.htm](http://www.cdc.gov/vaccines/programs/vfc/downloads/resolutions/1013-mening-mcv.pdf)

“Recommended Immunization Schedule for Adults Aged 19 Years or Older,
United States, 2017”:

[http://www.cdc.gov/vaccines/schedules/downloads/adult/adult-combined-schedule.pdf](http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6202a1.htm)

Package Inserts

* Tdap vaccine: [http://www.immunize.org/packageinserts/pi\_tdap.asp](http://www.cdc.gov/vaccines/programs/vfc/downloads/resolutions/2017-02-01-hepb.pdf)
* Td vaccine: [http://www.immunize.org/packageinserts/pi\_tetanus.asp](https://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf)
* Tdap vaccine: http://www.immunize.org/packageinserts/pi\_tdap.asp

Updated: March 31, 2013, July 1, 2014 and July 1, 2017