The purpose of this document is to provide authority for specific acts of Immunization clinical services under authority of Rule Title 22, Texas Administrative Code §193.2, Standing Delegation Orders.

Standing delegation orders (SDOs) and standing medical orders (SMOs) are written instructions, orders, rules, regulations or procedures prepared by a physician. SDOs provide authority and a plan for use with patients presenting themselves prior to being examined or evaluated by a physician. SMOs provide authority and direction for the performance of certain prescribed acts for patients which have been examined or evaluated by a physician. SDOs and SMOs are distinct from specific orders written for a particular patient.

The intended audience for these orders is licensed nurses working in Texas Department of State Health Services' (DSHS) Health Service Region (HSR) Offices.

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Standing Delegation Orders

A. Method Used for Development, Approval and Revision

This SDO and the relevant attachments shall be:

1. Developed by the Regional Medical Directors, a team of DSHS public health nurses appointed by the Regional Medical Directors, and the Director of Public Health Nursing at DSHS Central Office.
2. Reviewed and signed at least annually, by the authorizing physician, a physician licensed by the Texas Medical Board who executes this SDO.
3. Revised as necessary by the Regional Medical Directors and a team of DSHS public health nurses appointed by the Regional Medical Directors.

B. Level of Experience, Training, Competence, and Education Required

To carry out acts under this SDO, an authorized licensed nurse must:

1. Be an employee or contractor of the Texas Department of State Health Services.

2. Be currently licensed to practice by the Texas Board of Nursing.

3. Be currently certified in Basic Life Support Provider level "C" (adult, child, and infant).

4. Have successfully completed training on and adhere to:
   a. Epinephrine Auto-injector training. Training must be taken for the style of auto-injector (e.g., EpiPen/Auvi-Q) included in the emergency kit. Available at https://www.epipen.com/en/about-epipen/how-to-use-epipen, or https://www.auvi-q.com/auvi-q-demo?s_mcid=AVQCO21621PS&MTD=2&ENG=1&QCPN=2
   b. Adult, Child, and Catch-up Immunization Schedules. Available at: http://www.immunize.org/catg.d/p2011.pdf, http://www.immunize.org/catg.d/p2010.pdf, and http://www.immunize.org/shop/views/childsched_pg3.pdf (see ATTACHMENT 4)
   c. Current 2015-2016 Texas Minimum State Vaccine Requirements for Students Grades K-12. Available at http://www.dshs.state.tx.us/immunize/school/default.shtm (see ATTACHMENT 5)
   d. General Recommendations on Immunization. Available at: http://www.cdc.gov/mmwr/pdf/rr/rr6002.pdf
   e. How to Administer Intramuscular (IM) and Subcutaneous (SC) Injections. Available at: http://www.immunize.org/catg.d/p2020.pdf
   f. Medical Management of Vaccine Reactions in Children and Adults. Available at: http://www.immunize.org/catg.d/p3082.pdf (see ATTACHMENT 7)
   g. Current Vaccine Information Statements (VIS) for vaccines given. Available at: http://www.cdc.gov/vaccines/hcp/vis/index.html?s_cid=cs_74
   h. Epidemiology and Prevention of Vaccine-Preventable Diseases (The Pink Book) 13th Edition (2015). Available at: http://www.cdc.gov/vaccines/pubs/pinkbook/index.html
   i. Current vaccine package inserts for vaccines given. Available at: http://www.immunize.org/packageinserts/
   j. DSHS policies and/or procedures related to administration of vaccines:
      i. Recommendations for Handling and Storage of Biologicals (Stock #6-26P). Available at: www.dshs.state.tx.us/immunize/forms/6-26P.pdf
      ii. Obtaining consent for Immtrac. Available at: http://www.dshs.state.tx.us/immunize/immtrac/forms.shtm
      iii. Reporting adverse reactions. Available at: http://www.dshs.state.tx.us/immunize/safety/vaersweb.shtm

5. Have undergone the following initial or continuing evaluation of competence relevant to immunization clinical services within 12 months prior to signing and providing services under this SDO:

   a. Initial evaluation of competence is performed by the nurse's supervisor and consists of verification that the authorized licensed nurse possesses a valid nursing license, a post-test evaluation of initial training, and observation of the required clinical skills.

      If the nurse's supervisor is not a licensed clinician, a licensed nurse or authorizing physician responsible to oversee the clinical practice of the authorized licensed nurse shall be responsible for observation of the required clinical skills.

   b. Continuing evaluation of competence is performed annually by the nurse's supervisor, or clinical designee, and consists of verification that the authorized licensed nurse possesses a valid nursing license, an annual immunization services review with a post-test evaluation, and periodic observation of the required clinical skills.

      If the nurse's supervisor is not a licensed clinician, a licensed nurse or authorizing physician responsible to oversee the clinical practice of the authorized licensed nurse shall be responsible for observation of the required clinical skills.

6. Have reviewed and signed this SDO and the ***Attestation of Authorized Licensed Nurse***, (ATTACHMENT 1) within 12 months prior to providing services under this SDO.

C. Method of Maintaining a Written Record of Authorized Licensed Nurses

A record of the authorized licensed nurse who has completed the required training, demonstrated competence, and signed the SDO shall be documented and maintained by the nurse's supervisor in the Health Service Regional office. The physician-signed SDOs will be electronically scanned and deposited into the RLHS SharePoint site, Standing Delegation Orders

folder, along with a nurse-signed ***Attestation of Authorized Licensed Nurse***, (ATTACHMENT 1) for each nurse who is authorized to perform and has signed this SDO.

D. Authorized Delegated Acts

Authorized licensed nurses may evaluate and provide immunization clinical services under this SDO to clients identified for receipt of DSHS immunization clinical services and who do not have contraindications to vaccination. Vaccines that can be given under this SDO include:

a. Diphtheria and Tetanus (DT)
b. Diphtheria, Tetanus, and acellular Pertussis (DTaP)
c. Diphtheria, Tetanus, acellular Pertussis-Inactivated Polio Vaccine (DTaP-IPV Kinrix®)
d. Diphtheria, Tetanus, acellular Pertussis-Inactivated Polio Vaccine –Hepatitis B (DTaP-IPV-HepB Pediarix®)
e. Diphtheria, Tetanus, acellular Pertussis-Inactivated Polio Vaccine /Haemophilus influenza B (DTaP-IPV/HIB Pentacel®)
f. Haemophilus Influenzae B (HIB)
g. Hib-HepB (Comvax®)
h. Hepatitis A
i. Hepatitis A, Immune Globulin (IG)
j. Hepatitis B
k. HepA-HepB (Twinrix®)
l. Herpes Zoster
m. Human Papillomavirus (HPV)
n. Influenza
o. Measles, Mumps, Rubella (MMR)
p. Measles, Mumps, Rubella, Varicella (MMRV ProQuad®, Merck)
q. Meningococcal Conjugate (MenACWY)
r. Meningococcal Polysaccharide (MPSV4)
s. MenHibrix® (Hib-MenCY)
t. Pneumococcal Conjugate Vaccine (PCV)
u. Pneumococcal Polysaccharide 23-valent Vaccine (PPSV23)
v. Poliovirus – inactivated (IPV)
w. Rabies (for preexposure prophylaxis ONLY)
x. Rotavirus
y. Tetanus, Diphtheria, acellular Pertussis (Tdap), Tetanus/Diphtheria (Td)
z. Varicella

It is the intent of all parties that the acts performed under this SDO shall be in compliance with the Texas Medical Practice Act, the Texas Nursing Practice Act, the Texas Pharmacy Act, and the rules promulgated under those Acts.

E. Procedures and Requirements to be followed by Authorized Licensed Nurses

Adhere to Standard Precautions infection control precautions when participating in immunization clinical services. (Available at: http://www.cdc.gov/HAI/settings/outpatient/outpatient-care-gl-standared-precautions.html.) Occupational Safety and Health Administration (OSHA) regulations do not require gloves to be worn when administering vaccines unless the person administering the vaccine is likely to come into contact with potentially infectious body fluids or has open lesions on the hands; however, staff are strongly recommended to wear gloves when administering vaccines. Hand hygiene should always be performed between patients.

1. Utilize interpreter services to facilitate client and provider communication as it relates to limited English proficient (LEP) clients.

2. To the extent possible, determine that the client seen for immunization clinical services is who the person claims to be. Verification of identity is not required.

3. Create a medical record according to regional and program policy requirements. (Sample forms are available at the DSHS Public Health Nursing website at http://www.dshs.state.tx.us/rls/nursing/publications.shtm, and at the DSHS

Immunization Branch website at http://www.dshs.state.tx.us/immunize/providers.shtm#forms.)

4. Provide copies of the DSHS HIPAA privacy notice and applicable signed consent forms. Obtain client's signed consent and privacy acknowledgement using the following forms. Provide forms in the preferred language of the client. Include signed copies in the medical record.
    a. ***DSHS General Consent and Disclosure*** (L-36) http://www.dshs.state.tx.us/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=58076
    b. ***DSHS Immunization Branch Vaccine Documentation Form*** (C-100) https://secure.immunizetexasorderform.com/default.asp), or other DSHS-approved TWICES consent form.
    c. ***DSHS Privacy Notice***, available at: http://www.dshs.state.tx.us/hipaa/privacynotices.shtm

5. If the client's vaccination status is not current, determine if the client meets current DSHS Immunization Program eligibility criteria.
    a. If the client meets the DSHS Immunization Program eligibility criteria, specific immunization may be provided as authorized in the immunization SDO.
    b. If the client does not meet current DSHS Immunization Program eligibility criteria, refer client to an appropriate immunization provider resource for vaccination.

6. Review the client's specific vaccination history in the ImmTrac immunization registry and by questioning about specific vaccination history. Document on the patient vaccine record. Verify vaccination(s) is/are indicated, based on risk for disease exposure and vaccination history.

    Use the ***Immunization Screening Checklist*** (see ATTACHMENT 3) and the ***Immunization Standing Delegation Orders (disease-specific)*** (see ATTACHMENT 32) to determine contraindications and precautions.

    Use the ***Summary of Recommendations for Child/Teen Immunization*** and ***Summary of Recommendations for Adult Immunization*** (ATTACHMENT 4) and the ***2015-2016 Texas Minimum State Vaccine Requirements for Students Grades K-12*** (ATTACHMENT 5) to determine appropriate immunization schedule.

7. Do NOT administer a vaccine if a contraindication to that vaccine is noted.

8. Provide all patients (or, in the case of minors, their parent or legal representative) with a copy of the most current specific federal Vaccine Information Statement (VIS), published by the Centers for Disease Control and Prevention (CDC). Document the publication date of the VIS and the date it was given to the patient (parent/legal representative). Provide non-English speaking patients with a copy of the VIS in their native language, if available and preferred. Current VIS' can be found at www.immunize.org/vis. If combination vaccines are being administered, give a VIS for each disease-specific component of vaccine given. Explain the risks of the specific disease and vaccine for which a vaccine is being given. Provide the opportunity for the client to ask questions. If the client has questions the nurse cannot answer, contact the authorizing physician.

9. Precautions in pregnancy:
    a. A pregnancy test is not required prior to vaccine administration.
    b. The nurse may perform a pregnancy test if history indicates a that the client is likely to be pregnant.
    c. Females of childbearing age should be asked about the possibility of their being pregnant prior to being given any vaccine for which pregnancy is a contraindication or precaution.
    d. Document the patient's answer in the medical record.
    e. Pregnancy is a contraindication for measles, mumps, rubella, varicella, herpes zoster, and live attenuated influenza vaccine. If the patient is uncertain whether she is pregnant, a pregnancy test should be performed before administering measles, mumps, rubella, varicella, herpes zoster, and live attenuated influenza vaccine.
    f. Human papilloma virus (HPV) vaccines are not recommended for use in pregnant women. If a woman is found to be pregnant after initiating the vaccination series, the remainder of the 3-dose series should be delayed until completion of pregnancy. Pregnancy testing is not needed before HPV vaccination. If a

vaccine dose has been administered during pregnancy, no intervention is needed.

g. Although no adverse effects of inactivated polio vaccine (IPV) have been documented among pregnant women or their fetuses, vaccination of pregnant women should be avoided on theoretical grounds.
h. Refer pregnant women eligible for meningococcal ACWY vaccine to primary care provider for determination to vaccinate.
i. For further information on vaccination in pregnancy, se the Centers for Disease Control and Prevention's (CDC) *Guidelines for Vaccinating Pregnant Women* at http://www.cdc.gov/vaccines/pubs/preg-guide.htm.

Advise female vaccine recipients of childbearing age not to become pregnant for at least 4 weeks after receiving measles, mumps, rubella, varicella, herpes zoster, and live attenuated influenza vaccine.

10. It is contraindicated to give live virus vaccines (such as measles, mumps, rubella, varicella, herpes zoster, rotavirus, and live attenuated influenza vaccine) to clients immunocompromised by certain diseases or immunocompromizing medications. See ATTACHMENT 6: ***Vaccination of Persons with Primary and Secondary Immune Deficiencies*** for detailed recommendations.

11. If the client has no contraindications but has a precaution for vaccination, discuss with the client, parent, or legal guardian that a vaccination might be indicated in the presence of a precaution because the benefit of protection from the vaccine outweighs the risk for an adverse reaction.

12. The decision to administer immunizations MUST be made by the nurse or physician, AFTER screening for precautions and contraindications.

13. If the decision to administer the vaccine is made by the authorized licensed nurse after discussion regarding risks and benefits, administer vaccine(s) using the recommended administration procedure for injections and the product information guidelines for the vaccine, with emergency supplies readily available as outlined in ***Medical Management of Anaphylaxis and Adverse Reactions*** (ATTACHMENT 7) and ***Minimum Standard Requirements for Emergency Kit Contents*** (ATTACHMENT 9).

14. Ask the client to remain for 15 minutes in an area where he/she can be observed for adverse reactions.

15. Be prepared for an adverse reaction or medical emergency. Manage vaccine reactions according to ***Medical Management of Anaphylaxis and Adverse Reactions*** (ATTACHMENT 7).

16. Report any clinically significant adverse event occurring after administration of any vaccine licensed in the US to:

    a. the federal Vaccine Adverse Event Reporting System (VAERS) at http://www.dshs.state.tx.us/immunize/safety/vaersweb.shtm (or by calling (800) 822-7967). VAERS report forms are available at www.vaers.hhs.gov.
    b. the Regional Immunization Program Manager

17. Follow prescribed client record-keeping requirements, including completing the required reporting forms, and accurately and completely documenting each vaccination, as outlined.

F. Client Record-Keeping Requirements

Authorized licensed nurses must accurately and completely report and document each vaccination in the client's medical record, to include

1. Vaccine name, manufacturer, and lot number.
2. Site of injection and date vaccine administered.
3. VIS revision date and date VIS given to patient.
4. Your name, title, and signature, and the names of additional personnel involved in evaluation and/or treatment at each visit.

5. Contact with other health care providers relating to significant events concerning client's health status.
6. The client's relevant health history and the client's health status, including signs and symptoms and/or physical examination findings if indicated.
7. Any contraindications to vaccination and vaccination not given. If vaccine is not administered, record
   a. the reason(s) for non-receipt of the vaccine (e.g., medical contraindication, patient refusal)
   b. documentation of deviations in immunization schedule.
8. Actions carried out under these standing orders.
9. Any additional physician orders.
10. Additional medications administered, prescribed by the physician, or provided to the client.
11. Client response(s), if any.
12. Documentation that the appropriate forms are completed and included in the client's medical record and copies, when applicable, are provided to the client.

Record the date of vaccination and the name/location of the administering clinic on the client's personal immunization record card, if available.

G. Scope of Supervision Required

This SDO gives the authorized licensed nurse authority to perform the acts described in this SDO under the general medical supervision of the authorizing physician, and in consultation with the authorizing physician as needed.

H. Specialized Circumstances to Immediately Communicate with the Authorizing Physician

1. Specific circumstances that the authorized licensed nurse providing services under this SDO should immediately contact the physician by phone include, but are not limited to, when medical direction or consultation is needed.
2. In an emergency situation, the authorized licensed nurse is to call 911, provide first aid services as outlined in ***Medical Management of Anaphylaxis and Adverse Reactions*** (ATTACHMENT 7), and contact his/her supervisor and/or the authorizing physician by phone for instructions as soon as possible.

I. Limitations on Setting

Authorized licensed nurses can provide services under these standing orders in the clinic setting, in the client's home, or other field settings when

1. The authorizing physician or a designated alternate is available by phone
2. A 911 Emergency Response Team is available during, and for 15 minutes immediately following, vaccine administration
3. Emergency supplies outlined in ***Minimum Standard Requirements for Emergency Kit Contents*** (ATTACHMENT 9) are available for immediate use

J. Date and Signature of the Authorizing Physician

This SDO shall become effective on the date that it is signed by the authorizing physician(s), below, and will remain in effect until it is either rescinded, upon a change in the authorizing physician, or at the end of business on the last day of the current DSHS fiscal year (August 31, 2016), whichever is earlier.

Authorizing Physician's Signature: _____

Authorizing Physician's Title: _____

Printed Name: _____

Effective Date: _____

Emergency Contact Information: _____

ATTACHMENT 1: *Attestation of Authorized Licensed Nurse*

I have read and understand the *DSHS Standing Delegation Orders: Immunization Clinical Services Provided by Registered Nurses and Licensed Vocational Nurses, FY2015-16 ("SDO")* that was signed by

Dr.____ on_________________________________.

printed name of authorizing physician date of authorizing physician's signature

- I agree that I meet all qualifications for authorized licensed nurses outlined in the SDO.
- I agree to follow all instructions outlined in the SDO.

Printed name of authorized licensed nurse	Signature of Authorized Licensed Nurse	Date
Printed name of authorized licensed nurse	Signature of Authorized Licensed Nurse	Date
Printed name of authorized licensed nurse	Signature of Authorized Licensed Nurse	Date
Printed name of authorized licensed nurse	Signature of Authorized Licensed Nurse	Date
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ATTACHMENT 1: *Attestation of Authorized Licensed Nurse (cont.)*

I have read and understand the *DSHS Standing Delegation Orders: Immunization Clinical Services Provided by Registered Nurses and Licensed Vocational Nurses, FY2015-16 ("SDO")* that was signed by

Dr.______________________________________ on______________________________.
printed name of authorizing physician | date of authorizing physician's signature

- I agree that I meet all qualifications for authorized licensed nurses outlined in the SDO.
- I agree to follow all instructions outlined in the SDO.

Printed name of authorized licensed nurse	Signature of Authorized Licensed Nurse	Date
Printed name of authorized licensed nurse	Signature of Authorized Licensed Nurse	Date
Printed name of authorized licensed nurse	Signature of Authorized Licensed Nurse	Date
Printed name of authorized licensed nurse	Signature of Authorized Licensed Nurse	Date
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Printed name of authorized licensed nurse	Signature of Authorized Licensed Nurse	Date

ATTACHMENT 2: *Standing Orders for Administering Diphtheria and Tetanus Toxoids, adsorbed (DT) to Children Younger than Age 7 Years*

Purpose: To reduce morbidity and mortality from tetanus and diphtheria by vaccinating all infants and children who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate infants and children who meet the criteria below.

Procedures:

1. **Identify Population:** Identify infants and children ages 6 weeks through 6 years who have not completed a diphtheria and tetanus vaccination series.

2. **Screen Population:** Screen all patients for contraindications and precautions to DT:
   a. **Contraindications:**
      i. Severe allergic reaction (e.g., anaphylaxis) after a previous dose of DT or to a DT component. For a list of vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf
      ii. Uncontrolled progressive neurologic disorders (including infantile spasms, uncontrolled epilepsy, progressive encephalopathy). *
   b. **Precautions:**
      i. Moderate or severe acute illness with or without fever
      ii. History of arthus-type hypersensitivity reactions after a previous dose of tetanus or diphtheria toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid containing vaccine
      iii. Fever of 105° F (40.5° C) or higher not attributable to another cause within 48 hours of a previous dose of DT
      iv. Collapse or shock-like state (i.e., hypotensive hyporesponsive episode) within 48 hours of a previous dose of DT
      v. Seizure within 3 days of a previous dose of DT
      vi. Persistent, inconsolable crying lasting more than 3 hours that occurred within 48 hours of a dose of DTaP
      vii. History of Guillain-Barré syndrome within 6 weeks of previous dose of tetanus toxoid-containing vaccine

(*Note: Diphtheria and Tetanus Toxoids and Acellular Pertussis Vaccine (DTaP) or DTP is recommended for primary immunization of infants and persons up to 7 years of age. However, in instances where the pertussis vaccine component is contraindicated, or where the physician decides that pertussis vaccine is not to be administered, DT should be used.)*

3. **Administer Vaccine:** Provide routine vaccination with DT as follows:
   a. For children ages 6 weeks through 12 months, the primary series consists of 4 doses:
      i. Administer three doses 4 to 8 weeks apart, at ages 6 weeks to 2 months, 4 months, 6 months, 8 months.
      ii. Administer a final dose at 6 to 12 months after the third injection.
   b. For children ages 1 year through 6 years (up to the seventh birthday), the primary series consists of 3 doses:
      i. Administer two doses 4 to 8 weeks apart.
      ii. Administer a final dose 6 to 12 months after the second injection. In the event the final immunizing dose would be given after the seventh birthday, use Tetanus and Diphtheria Toxoids Adsorbed For Adult Use.
   c. For children between 4 and 6 years of age (preferably at time of kindergarten or elementary school entrance), who received all four primary immunizing doses before their fourth birthday, administer a single dose of DT just before entering kindergarten or elementary school. This booster dose is not necessary if the fourth dose in the primary series was given after the fourth birthday. Thereafter, routine booster immunizations should be with Tetanus and Diphtheria Toxoids Adsorbed For Adult Use, at intervals of 10 years.

Administer 0.5 mL DT intramuscularly in the vastus lateralis for infants (and toddlers lacking adequate deltoid mass) and in the deltoid muscle (for toddlers and older children). Use a 22–25g needle. Choose needle length appropriate to the child's age and body mass: infants younger than age 12 mos: 1"; toddlers age 1 through 2yrs: 1–1¼ "; children age 3yrs and older: 1–1½".

(Note: A 5/8" needle may be used for patients weighing less than 130 lbs [60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90-degree angle.)

ATTACHMENT 2: *Standing Orders for Administering Diphtheria and Tetanus Toxoids, adsorbed (DT) to Children Younger than Age 7 Years, cont.*

Interruption of the recommended schedule with a delay between doses does not interfere with the final immunity achieved with DT. There is no need to start the series over again, regardless of the time elapsed between doses.

ATTACHMENT 2: *Standing Orders for Administering Diphtheria, Tetanus, and acellular Pertussis (DTaP) to Children Younger than Age 7 Years*

Purpose: To reduce morbidity and mortality from tetanus, diphtheria, and pertussis by vaccinating all infants and children who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate infants and children who meet the criteria below.

Procedures:

1. **Identify Population:** Identify infants and children ages 2 months through 6 years who have not completed a diphtheria, tetanus, and acellular pertussis (DTaP) vaccination series.

2. **Screen Population:** Screen all patients for contraindications and precautions to DTaP:
   a. **Contraindications:**
      i. Severe allergic reaction (e.g., anaphylaxis) after a previous dose of DTaP or to a DTaP component. For a list of vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf
      i. Encephalopathy (e.g., coma, decreased level of consciousness; prolonged seizures) not attributable to another identifiable cause within 7 days of a previous dose of pertussis-containing vaccine.
      iii. Uncontrolled progressive neurologic disorders (including infantile spasms, uncontrolled epilepsy, progressive encephalopathy). *
   b. **Precautions:**
      viii. Moderate or severe acute illness with or without fever
      ix. History of arthus-type hypersensitivity reactions after a previous dose of tetanus or diphtheria toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid containing vaccine
      x. Fever of 105° F (40.5° C) or higher not attributable to another cause within 48 hours of a previous dose of DTaP
      xi. Collapse or shock-like state (i.e., hypotensive hyporesponsive episode) within 48 hours of a previous dose of DTaP
      xii. Seizure within 3 days of a previous dose of DTaP
      xiii. Persistent, inconsolable crying lasting more than 3 hours that occurred within 48 hours of a dose of DTaP
      xiv. History of Guillain-Barré syndrome within 6 weeks of previous dose of tetanus toxoid-containing vaccine

3. **Administer Vaccine:** Provide routine vaccination with DTaP at ages 2 months, 4 months, 6 months, 15 through 18 months, and 4 through 6 years.

   Administer 0.5 mL DTaP intramuscularly in the vastus lateralis for infants (and toddlers lacking adequate deltoid mass) and in the deltoid muscle (for toddlers and older children). Use a 22–25g needle. Choose needle length appropriate to the child's age and body mass: infants younger than age 12 mos: 1"; toddlers age 1 through 2yrs: 1–1¼ "; children age 3yrs and older: 1–1½ ".
   (Note: A 5/8" needle may be used for patients weighing less than 130 lbs [60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90-degree angle.)

   For patients who have not received DTaP at the routine recommended schedule, administer one dose at the earliest opportunity and then schedule subsequent doses by observing minimum intervals of:
   - 4 weeks between the first three doses
   - 6 months between the third and fourth dose
   - If the child is age 4–6 years and the fourth dose was administered before the fourth birthday, administer an additional dose at least 6 calendar months after the fourth dose.

ATTACHMENT 2: *Standing Delegation Orders for Administering Combination Diphtheria, Tetanus, acellular Pertussis-Polio (DTaP-IPV - KINRIX®)*

Purpose: To reduce morbidity and mortality from tetanus, diphtheria, pertussis, poliomyelitis, and hepatitis B by vaccinating all infants and children who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate infants and children who meet the criteria below.

Procedures:

1. **Identify Population:** Identify children 4 through 6 years of age in need of vaccination against diphtheria, tetanus, pertussis, and poliomyelitis as the **fifth dose** in the diphtheria, tetanus, and acellular pertussis (DTaP) vaccine series and the **fourth dose** in the inactivated poliovirus vaccine (IPV) series

2. **Screen Population:** Screen all patients for contraindications and precaution to Kinrix® vaccine.
   Provide Kinrix only for the **fifth dose** in the diphtheria, tetanus, and acellular pertussis (DTaP) vaccine series and the **fourth dose** in the inactivated poliovirus vaccine (IPV) series
   a. Contraindications:
   ii. Severe allergic reaction (e.g., anaphylaxis) after a previous dose of any diphtheria toxoid, tetanus toxoid, pertussis or poliovirus-containing vaccine, or to any component of Kinrix®, including neomycin and polymyxin B. For a list of vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf
   iv. Encephalopathy within 7 days of administration of a previous pertussis-containing vaccine.
   v. Uncontrolled progressive neurologic disorders (including infantile spasms, uncontrolled epilepsy, progressive encephalopathy). *
   b. **Precautions**:
   vi. Guillain-Barre occurred within 6 weeks of receipt of a prior vaccine containing tetanus toxoid. If yes, the decision to give KINRIX™ should be based on potential benefits and risks. When a decision is made to withhold tetanus toxoid, other available vaccines should be given, as indicated.
   vii. The needleless prefilled syringes contain dry natural latex rubber and may cause allergic reactions.
   viii. If adverse events (i.e., temperature ≥105º, collapse or shock-like state, persistent, inconsolable crying lasting ≥3 hours, occurring within 48 hours of vaccination; seizures within 3 days of vaccination) have occurred in temporal relation to receipt of a pertussis-containing vaccine, the decision to give Kinrix® should be based on potential benefits and risks.
   (Note: When a decision is made to withhold Kinrix®, other available vaccines should be given, as indicated.)

3. **Administer Vaccine:** Administer 0.5 ml Kinrix® intramuscularly (22-25g 1″-1 ½″ needle) in the deltoid muscle.

Unless otherwise noted with an *, information in this document mirrors current IAC published guidance **www.immunize.org • www.vaccineinformation.org**

References:

Kinrix™ package insert

ATTACHMENT 2*: Standing Delegation Orders for Administering Diphtheria, Tetanus, acellular Pertussis-Inactivated Polio Vaccine –Hepatitis B (DTaP-IPV-HepB Pediarix®)*

Purpose: To reduce morbidity and mortality from tetanus, diphtheria, pertussis, poliomyelitis, and hepatitis B by vaccinating all infants and children who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate infants and children who meet the criteria below.

Procedures:

1. **Identify Population:** Identify infants and children ages 2 months through 6 years who have not completed diphtheria, tetanus, acellular pertussis (DTaP), poliomyelitis, or hepatitis B series (Pediarix®) vaccination series.

2. **Screen Population:** Screen all patients for contraindications and precautions to Pediarix®:
   a. **Contraindications:**
      iii. a history of a severe allergic reaction (e.g., anaphylaxis) after a previous dose of Pediarix® or to a Pediarix ®component. For a list of vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf
      i. a history of encephalopathy (e.g., coma, decreased level of consciousness; prolonged seizures) not attributable to another identifiable cause within 7 days of a previous dose of pertussis-containing vaccine.
      ii. Uncontrolled progressive neurologic disorders (including infantile spasms, uncontrolled epilepsy, progressive encephalopathy).*
   b. **Precautions:**
      i. moderate or severe acute illness with or without fever
      ii. history of arthus-type hypersensitivity reactions after a previous dose of tetanus or diphtheria toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid containing vaccine
      iii. fever of 105° F (40.5° C) or higher not attributable to another cause within 48 hours of a previous dose of DTaP
      iv. collapse or shock-like state (i.e., hypotensive hyporesponsive episode) within 48 hours of a previous dose of DTaP
      v. seizure within 3 days of a previous dose of DTaP
      vi. persistent, inconsolable crying lasting more than 3 hours that occurred within 48 hours of a dose of DTaP
      vii. history of Guillain-Barre
      viii. within 6 weeks of receipt of a prior vaccine containing tetanus toxoid. If yes, the decision to give Pediarix® should be based on potential benefits and risks.

      ix. The needleless prefilled syringes contain dry natural latex rubber and may cause allergic reactions.
      x. If adverse events (i.e., temperature ≥105º, collapse or shock-like state, persistent, inconsolable crying lasting ≥3 hours, occurring within 48 hours of vaccination; seizures within 3 days of vaccination) have previously occurred following a pertussis-containing vaccine, the decision to give Pediarix® should be based on potential benefits and risks.

(Note: When a decision is made to withhold Pediarix®, other available vaccines should be given, as indicated.)

3. **Administer Vaccine:** Administer 0.5 mL Pediarix® intramuscularly in the vastus lateralis for infants (and toddlers lacking adequate deltoid mass) and in the deltoid muscle (for toddlers and older children). Use a 22–25g needle. Choose needle length appropriate to the child's age and body mass: infants younger than age 12 mos: 1"; toddlers age 1 through 2yrs: 1–1¼"; children age 3yrs and older: 1–1½".
   Note: A 5/8" needle may be used for patients weighing less than 130 lbs [60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90-degree angle.

   Provide routine vaccination with Pediarix ® at ages 2 months, 4 months, and 6 months (see Combinations Using Hepatitis A and/or Hepatitis B Vaccines table below). For patients who have not received Pediarix® in this schedule, administer one dose at the earliest opportunity and then schedule subsequent doses by observing minimum intervals of:

ATTACHMENT 2*: Standing Delegation Orders for Administering Diphtheria, Tetanus, acellular Pertussis-Inactivated Polio Vaccine –Hepatitis B (DTaP-IPV-HepB Pediarix®), cont.*

- 4 weeks between the first and second doses, and
- 12 weeks between the second and third dose.

Note: Pediarix can be used for the primary series (first three doses) but should not be used to complete any single-antigen vaccine series.

Recommended Dosing Of Combinations (Pediarix®)

Combinations Using Hepatitis A and/or Hepatitis B Vaccines				
Vaccine	**Age Group**	**Volume**	**# Doses**	**Schedule/Dosing Interval**
Comvax[3] Hib+HepB (Merck)	6 wks – 4 yrs	0.5 mL	3	Age: 2, 4, 12–15 mos
Pediarix[3] DTaP+HepB+IPV (GlaxoSmithKline)	6 wks – 6 yrs	0.5 mL	3	Age: 2, 4, 6 mos
Twinrix HepA+HepB (GlaxoSmithKline)	18 yrs & older	1.0 mL	3	Dose intervals: 0, 1, 6 mos
		1.0 mL	4	Dose intervals: 0, 7, 21-30 days, 12 mos.
[3]Cannot be administered before age 6 weeks, but may be used to complete the hepatitis B vaccine series for all infants, including those of HBsAg+ mothers. Either Engerix-B or Recombivax HB should be used for the hepatitis B vaccine birth dose prior to hospital discharge.				

Unless otherwise noted with an *, information in this document mirrors current IAC published guidance **www.immunize.org • www.vaccineinformation.org**

References:

Centers for Disease Control and Prevention, *Hepatitis B Vaccine: Frequently asked questions for healthcare providers.* Online at http://www.cdc.gov/hepatitis/hbv/hbvfaq.htm#D4

Combinations Using Hepatitis A and/or Hepatitis B vaccines located online at: http://www.immunize.org/catg.d/p2081.pdf

ATTACHMENT *2: Standing Delegation Orders for the Administration of Diphtheria, Tetanus, acellular Pertussis, inactivated Polio/ Haemophilus Influenza Vaccine (DTaP-IPV/Hib: Pentacel®)*

Purpose: To reduce morbidity and mortality from tetanus, diphtheria, pertussis, poliomyelitis, and haemophilus influenza type b by vaccinating all infants and children who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate infants and children who meet the criteria below.

Procedures:

1. **Identify Population:** Identify infants and children ages 6 weeks through 4 years who need:
   a. DTaP doses 1, 2, 3, or 4
   b. Hib doses 1, 2, 3, or 4
   c. IPV doses 1, 2, 3, or 4

Note: Routine vaccination of Pentacel® is given as a 4 dose series. Not approved for children older than 5 years of age.

2. **Screen Population:** Screen all patients for contraindications and precautions to Pentacel®.
   a. **Contraindications:**
      iv. Severe allergic reaction (e.g., anaphylaxis) after a previous dose of Pentacel® or to a Pentacel® component, including DTap, IPV, or Hib vaccines, or neomycin or polymixin B. For a list of vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf
      i. Encephalopathy (e.g., coma, decreased level of consciousness; prolonged seizures) not attributable to another identifiable cause within 7 days of a previous dose of pertussis-containing vaccine.
      ii. Uncontrolled progressive neurologic disorders (including infantile spasms, uncontrolled epilepsy, progressive encephalopathy).
   b. **Precautions:**
      i. Moderate or severe acute illness with or without fever
      ii. History of arthus-type hypersensitivity reactions after a previous dose of tetanus or diphtheria toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid containing vaccine
      iii. Fever of 105° F (40.5° C) or higher not attributable to another cause within 48 hours of a previous dose of DTaP
      iv. Collapse or shock-like state (i.e., hypotensive hyporesponsive episode) within 48 hours of a previous dose of DTaP
      v. Seizure within 3 days of a previous dose of DTaP
      vi. Persistent, inconsolable crying lasting more than 3 hours that occurred within 48 hours of a dose of DTaP
      vii. History of Guillain-Barre within 6 weeks of receipt of a prior vaccine containing tetanus toxoid. If yes, the decision to give Pentacel® should be based on potential benefits and risks.
      viii. The needleless prefilled syringes contain dry natural latex rubber and may cause allergic reactions.
      ix. If adverse events (i.e., temperature ≥105º, collapse or shock-like state, persistent, inconsolable crying lasting ≥3 hours, occurring within 48 hours of vaccination; seizures within 3 days of vaccination) have previously occurred following a pertussis-containing vaccine, the decision to give Pentacel® should be based on potential benefits and risks.

(Note: When a decision is made to withhold Pentacel®, other available vaccines should be given, as indicated.)

3. **Administer Vaccine:** Administer 0.5 mL Pentacel® intramuscularly in the vastus lateralis for infants (and toddlers lacking adequate deltoid mass) and in the deltoid muscle (for toddlers and older children). Use a 22–25g needle. Choose needle length appropriate to the child's age and body mass: infants younger than age 12 mos: 1"; toddlers age 1 through 2yrs: 1– 1¼"; children age 3yrs and older: 1–1½ ".

(Note: A 5/8" needle may be used for patients weighing less than 130 lbs [60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90-degree angle.)

Provide routine vaccination with Pentacel® at ages 6 weeks, 4 months, 6 months, and 15 – 18 months of age. For patients who have not received Pentacel® in this schedule, administer one dose at the earliest opportunity and then schedule subsequent doses by observing minimum intervals of

ATTACHMENT *2: Standing Delegation Orders for the Administration of Diphtheria, Tetanus, acellular Pertussis, inactivated Polio/ Haemophilus Influenza Vaccine (DTaP-IPV/Hib: Pentacel®), cont.*

a. 4 weeks between the first and second doses, and
b. 4 weeks between the second and third dose, and
c. 6 months between third and fourth dose.
(Note: If Pentacel® is administered at 12 – 15 months for the purpose of catch-up, a dose of DTaP at age 15 – 18 months is not needed, and a final IPV dose is needed after age 4 years.).

d. **Catch-up schedule**
   i. If child is more than one month behind routine schedule for primary series and first booster of DTaP, IPV, and Hib, follow Pentacel® administration catch-up schedule (below).
   ii. If child needs fifth dose of DTaP, do not give Pentacel®. Follow routine or catch-up DTaP schedule.

e. Follow the **suggested schedule** (below) **when switching** to Pentacel® or using Pentacel® exclusively:

Vaccine	Minimum Intervals		
DTaP-IPV-Hib as Pentacel®	**Dose 1 to dose 2**	**Dose 2 to dose 3**	**Dose 3 to dose 4**
	4 weeks	4 weeks	At least 6 months

Suggested Schedules When Switching to Pentacel or Using Pentacel Exclusively

The schedules below do not include Pnuemococcal conjugate or rotavirus vaccines

Suggested timing of hepatitis B vaccination when using Pentacel exclusively:

Birth	2 months	4 months	6 months	12-15 months
Hep B	Hep B		Hep B	
	Pentacel (DTaP-IPV-Hib)	Pentacel (DTaP-IPV-Hib)	Pentacel (DTaP-IPV-Hib)	DTaP
				IPV

Switching from Pediarix to Pentacel at age 4 months:

Birth	2 months	4 months	6 months	12-15 months
Hep B			Hep B	
	Pediarix (DTaP-IPV-hep B)	Pentacel (DTaP-IPV-Hib)	Pentacel (DTaP-IPV-Hib)	DTaP
	ActHib			
				IPV

Switching from Pediarix to Pentacel at age 6 months:

Birth	2 months	4 months	6 months	12-15 months
Hep B			Hep B	
	Pediarix (DTaP-IPV-hep B)	Pediarix (DTaP-IPV-hep B)	Pentacel (DTaP-IPV-Hib)	DTaP
	ActHib	ActHib		
				IPV

Switching from non-combination products to Pentacel at 4 months:

Birth	2 months	4 months	6 months	12-15 months
Hep B	Hep B		Hep B	
	DTaP	Pentacel (DTaP-IPV-Hib)	Pentacel (DTaP-IPV-Hib)	DTaP
	ActHib			
	IPV			IPV

Switching from non-combination products to Pentacel at 6 months:

Birth	2 months	4 months	6 months	12-15 months
Hep B	Hep B		Hep B	
	DTaP	DTaP	Pentacel (DTaP-IPV-Hib)	DTaP
	ActHib	ActHib		
	IPV	IPV		IPV

Source: Centers for Disease Prevention and Control (CDC)

Unless otherwise noted with an *, information in this document mirrors current IAC published guidance www.immunize.org • www.vaccineinformation.org

ATTACHMENT 2: *Standing Orders for Administering Haemophilus influenzae Type B (Hib) Vaccine to Children*

Purpose: To reduce morbidity and mortality from Haemophilus influenzae type b disease by vaccinating all children who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate children who meet any of the criteria below.

Procedures:

1. **Identify Population**: Identify infants and children in need of vaccination against Haemophilus influenzae type b (Hib) based on the following criteria:
   a. age 6 weeks through 14 months without vaccination or with an incomplete primary series of Hib vaccine
   b. age 15 months through 59 months (before 5th birthday) without evidence of receiving a dose of Hib vaccine since his or her 1st birthday
   c. age 15 months through 59 months (before 5th birthday) who are partially vaccinated and are undergoing elective splenectomy, or receiving chemotherapy or radiation therapy
   d. age 5 years or older who are
      i. unvaccinated or partially vaccinated, and
      ii. have anatomic or functional asplenia (including sickle cell disease), or
      iii. have human immunodeficiency virus (HIV) infection

2. **Screen Population**: Screen all patients for contraindications and precautions to Hib vaccine:
   a. **Contraindications**: a history of a severe allergic reaction (e.g., anaphylaxis) after a previous dose of Hib vaccine or to a Hib vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
   b. **Precautions**: moderate or severe acute illness with or without fever

3. **Administer Vaccine:** Provide routine vaccination with Hib vaccine at ages 2 months, 4 months, 6 months†, and 12 through 15 months. Administer 0.5 mL Hib vaccine intramuscularly in the vastus lateralis for infants (or for toddlers lacking adequate deltoid mass) or in the deltoid muscle (for toddlers and older children). Use a 22–25g needle. Choose needle length appropriate to the child's age and body mass: infants younger than 12 mos: 1"; toddlers age 1 through 2 yrs: 1–1¼"; children age 3 through 5 yrs: 1–1½".
   (Note: A 5/8" needle may be used in toddlers and children who weigh less than 130 lbs [60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90 degree angle.)

   For children identified in 1a or 1b who have not received Hib vaccine at the ages specified, administer one dose at the earliest opportunity and then schedule subsequent doses by observing the following minimum intervals:

For Children Who Have Fallen Behind: Minimum Intervals Permissible Between Doses of Hib Vaccine		
Interval between dose 1 and dose 2	**Interval between dose 2 and dose 3**	**Interval between dose 3 and dose 4**
4 weeks if first dose given at age younger than 12 mos **8 weeks** (as final dose) if first dose given at age 12-14 mos **No further doses needed** if first dose given at age 15 mos or older	**4 weeks**† if current age younger than 12 mos **8 weeks (as final dose)** † if current age 12 mos or older and second dose given at age younger than 15 mos **No further doses needed** if previous dose given at age 15 mos or older	**8 weeks (as final dose)** only necessary for children ages 12 mos - 5 yrs who received 3 doses before age 12 mos.

For children identified in 1c and 1d, administer one dose at the earliest opportunity.

† If child's current age is younger than 12 months and the first 2 doses were PRP-OMP (PedvaxHIB® or Comvax® [Merck]), the third (and final) dose should be administered at age 12–15 months and at least 8 weeks after the second dose.

Unless otherwise noted with an *, information in this document mirrors current IAC published guidance www.immunize.org • www.vaccineinformation.org

ATTACHMENT 2: *Standing Orders for Administering Haemophilus influenzae Type B (Hib) Vaccine to Adults*

Purpose: To reduce morbidity and mortality from Haemophilus influenzae type b disease by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate adults who meet any of the criteria below.

Procedures:

1. **Identify Population:** Identify adults in need of vaccination against Haemophilus influenzae type b (Hib) based on the following criteria:
   a. Diagnosis of anatomic or functional asplenia (e.g., sickle cell disease, elective splenectomy) and no prior documented history of Hib vaccination
   b. Recipient of hematopoietic stem cell transplant (HSCT)

2. **Screen Population:** Screen all patients for contraindications and precautions to Hib vaccine:
   a. **Contraindications:** a history of a severe allergic reaction (e.g., anaphylaxis) after a previous dose of Hib vaccine or to a Hib vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
   b. **Precautions:** moderate or severe acute illness with or without fever

3. **Administer Vaccination:** Administer 0.5 mL Hib vaccine via the intramuscular route (22–25g, 1–1½" needle) in the deltoid muscle. For patients identified in 1.a. above, administer a 1-time dose. For patients identified in 1.b. above, administer a 3-dose series 6 to 12 months after a successful transplant, regardless of vaccination history. Separate the doses by at least 4 weeks between the doses.
   (Note: A 5/8" needle may be used for patients who weigh less than 130 lbs [60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90 degree angle.)

ATTACHMENT 2: *Standing Orders for Administering Haemophilus influenzae Type B – Hepatitis B (Hib-Hep B: Comvax®) Vaccine to Infants*

Purpose: To reduce morbidity and mortality from Haemophilus influenzae type b disease by vaccinating all children who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate children who meet any of the criteria below.

Procedures:

1. **Identify Population:** Identify infants in need of vaccination against Haemophilus influenzae type b/ Hepatitis B (Comvax®) based on the following criteria:
   a. Age 6 weeks through 15 months, and
   b. Born to HBsAG negative mother, and
   c. Without vaccination or with an incomplete primary series of Hib and Hepatitis B vaccine

2. **Screen Population:** Screen all patients for contraindications and precautions to Hib and Hepatitis B vaccine:
   a. **Contraindications**: a history of a severe allergic reaction (e.g., anaphylaxis) after a previous dose of Hib, Hepatitis B, or Comvax vaccine or to a Hib, Hepatitis B, or Comvax vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
   b. **Precautions**: moderate or severe acute illness with or without fever

3. **Administer Vaccination:** Provide routine vaccination with Comvax vaccine at ages 2 months, 4 months, and 12 through 15 months.† See **Recommended dosing of combination (Comvax®)** table below. Administer 0.5 mL Comvax vaccine intramuscularly in the vastus lateralis for infants (or for toddlers lacking adequate deltoid mass) or in the deltoid muscle (for toddlers and older children). Use a 22–25g needle. Choose needle length appropriate to the child's age and body mass: infants younger than 12 mos: 1"; toddlers age 1 through 2 yrs: 1–1¼"; children age 3 through 5 yrs: 1–1½".
   (Note: A 5/8" needle may be used in toddlers and children who weigh less than 130 lbs [60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90 degree angle.)

† If child's current age is younger than 12 months and the first 2 doses were PRP-OMP (PedvaxHIB® or Comvax® [Merck]), the third (and final) dose should be administered at age 12–15 months and at least 8 weeks after the second dose.

Recommended dosing of combinations (*Comvax®*)

Combinations Using Hepatitis A and/or Hepatitis B Vaccines				
Vaccine	**Age Group**	**Volume**	**# Doses**	**Schedule/Dosing Interval**
Comvax[3] Hib+HepB (Merck)	6 wks – 4 yrs	0.5 mL	3	Age: 2, 4, 12–15 mos
Pediarix[3] DTaP+HepB+IPV (GlaxoSmithKline)	6 wks – 6 yrs	0.5 mL	3	Age: 2, 4, 6 mos
Twinrix HepA+HepB (GlaxoSmithKline)	18 yrs & older	1.0 mL	3	Dose intervals: 0, 1, 6 mos
		1.0 mL	4	Dose intervals: 0, 7, 21-30 days, 12 mos.
[3]Cannot be administered before age 6 weeks, but may be used to complete the hepatitis B vaccine series for all infants, including those of HBsAg+ mothers. Either Engerix-B or Recombivax HB should be used for the hepatitis B vaccine birth dose prior to hospital discharge.				

Reference:
Combinations Using Hepatitis A and/or Hepatitis B vaccines located online at: http://www.immunize.org/catg.d/p2081.pdf

***Unless otherwise noted with an *, information in this document mirrors current IAC published guidance* www.immunize.org • www.vaccineinformation.org**

ATTACHMENT 3: *Standing Orders for Administering Hepatitis A Vaccine to Children & Teens*

Purpose: To reduce morbidity and mortality from hepatitis A virus (HAV) infection by vaccinating all children and teens who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate children and teens who meet any of the criteria below.

Procedure

1. Identify all children and teens in need of vaccination against hepatitis A based on the following criteria:
   a. age 12–23 months
   b. age 2–18 years who live in communities, regions, or states where routine vaccination is recommended (contact your health department for recommendations)
   c. anticipated travel to a country with intermediate or high endemicity for hepatitis A (i.e., all except Canada, Japan, Australia, New Zealand, and Western Europe)
   d. anticipated close personal contact with an international adoptee from a country of high or intermediate endemicity during the first 60 days after the arrival of the adoptee in the United States
   e. a male who has sex with other males
   f. users of street drugs (injecting and non-injecting)
   g. diagnosis of chronic liver disease, including hepatitis B and C
   h. diagnosis of a clotting-factor disorder, such as hemophilia
   i. an unvaccinated child or teen with recent possible exposure to HAV (e.g., within previous two weeks). *(Note: Children younger than age 12 months should be given IG instead of vaccine.)*
   j. any other child or teen who wants to be protected from hepatitis A

2. **Screen Population:** Screen all patients for contraindications and precautions to hepatitis A vaccine:
   a. **Contraindications:** a history of a serious reaction (e.g., anaphylaxis) after a previous dose of hepatitis A vaccine or to a hepatitis A vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
   b. **Precautions:** moderate or severe acute illness with or without fever

3. **Administer Vaccine:** Administer hepatitis A vaccine intramuscularly as follows: 0.5 mL for patients age 1–18 years and 1.0 mL for patients age 19 years and older. Use a 22–25g needle. Choose needle length appropriate to the child's age and body mass: toddlers 1–2 yrs: 1–1 ¼" (anterolateral thigh) or 5/8"–1" (deltoid muscle); children age 3 yrs and older: 1–1½". *(Note: a 5/8" needle may be used for patients who weigh less than 130 lbs [60kg] for injection in the deltoid muscle, only if the skin is stretched tight and the injection is made at a 90-degree angle.)*

   Provide a subsequent dose of hepatitis A vaccine to complete each patient's 2-dose schedule by observing a minimum interval of 6 months between the first and second doses as outlined in **Recommended Dosages and Schedules of Hepatitis A Vaccines** table below.

Recommended Dosages and Schedules of Hepatitis A Vaccines

Vaccine	Age Group	Dose	Volume	# Doses	Dosing Interval
Havrix (GlaxoSmithKline)	1–18 yrs	720 ELISA Units	0.5 mL	2	0, 6–12 mos
	19 yrs & older	1440 ELISA Units	1.0 mL	2	0, 6–12 mos
Vaqta (Merck)	1–18 yrs	25 Units	0.5 mL	2	0, 6–18 mos
	19 yrs & older	50 Units	1.0 mL	2	0, 6–18 mos

Reference: Combinations Using Hepatitis A and/or Hepatitis B vaccines located online at: http://www.immunize.org/catg.d/p2081.pdf

ATTACHMENT 2: *Standing Orders for Administering Hepatitis A Vaccine to Adults*

Purpose: To reduce morbidity and mortality from hepatitis A virus (HAV) infection by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate adults who meet the criteria below.

Procedures:

1. **Identify Population:** Identify all adults in need of vaccination against hepatitis A based on the following criteria:
   a. any adult who wants to be protected from hepatitis A
   b. anticipated travel to a country with high or intermediate endemicity for hepatitis A (i.e., all except the United States, Canada, Japan, Australia, New Zealand, and Western Europe)
   c. a male who has sex with other males
   d. users of street drugs (injecting and non-injecting)
   e. diagnosis of chronic liver disease, including hepatitis B and C
   f. diagnosis of a clotting-factor disorder, such as hemophilia
   g. anticipated close personal contact with an international adoptee from a country of high or intermediate endemicity during the first 60 days after the arrival of the adoptee in the United States
   h. employment in a research laboratory requiring work with HAV or HAV-infected primates
   i. an unvaccinated adult age 40 years or younger with recent possible exposure to HAV (e.g., within previous two weeks)

   (Note: Adults older than age 40 years who have an indication for vaccination can and should receive both IG and vaccine.)

2. **Screen Population:** Screen all patients for contraindications and precautions to hepatitis A vaccine:
   a. **Contraindications:** a history of a serious reaction (e.g., anaphylaxis) after a previous dose of hepatitis A vaccine or to a hepatitis A vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
   b. **Precautions:** a moderate or severe acute illness with or without fever

3. **Administer Vaccine:** For patients younger than age 19 years, administer 0.5 mL hepatitis A vaccine, and for patients age 19 years and older, administer 1.0 mL hepatitis A vaccine. Give vaccine intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle or, alternatively, the anterolateral thigh also can be used.
   (Note: a 5/8" needle may be used for patients who weigh less than 130 lbs [60kg] for injection in the deltoid muscle, only if the subcutaneous tissue is not bunched and the injection is made at a 90-degree angle.)

   Provide a subsequent dose of hepatitis A vaccine to complete each patient's 2-dose schedule by observing a minimum interval of 6 months between the first and second doses as outlined in **Recommended Dosages and Schedules of Hepatitis A Vaccines** table below.

Recommended Dosages and Schedules of Hepatitis A Vaccines

Vaccine	Age Group	Dose	Volume	# Doses	Dosing Interval
Havrix (GlaxoSmithKline)	1–18 yrs	720 ELISA Units	0.5 mL	2	0, 6–12 mos
	19 yrs & older	1440 ELISA Units	1.0 mL	2	0, 6–12 mos
Vaqta (Merck)	1–18 yrs	25 Units	0.5 mL	2	0, 6–18 mos
	19 yrs & older	50 Units	1.0 mL	2	0, 6–18 mos

Reference: Hepatitis A and Hepatitis B vaccines located online at: http://www.immunize.org/catg.d/p2081.pdf

Unless otherwise noted with an *, information in this document mirrors current IAC published guidance www.immunize.org • www.vaccineinformation.org

ATTACHMENT 2: *Standing Orders for Administering Hepatitis A Immune Globulin (IG)*

Purpose: To reduce morbidity and mortality from hepatitis A virus (HAV) infection by administering hepatitis A IG to those who meet the established criteria.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may administer hepatitis A IG to close contacts of people with serologically confirmed hepatitis A who meet the criteria below:
(*Note: For healthy persons between 12 months and 40 years of age, single-antigen hepatitis A vaccine at the age-appropriate dose is preferred. Hepatitis A vaccine gives better long-term protection, and administration is easy.)*

Procedures:

1. **Identify Population:** Identify all infants and adults in need of administration of hepatitis A IG based on the following criteria:
   a. recently exposed (within the previous 14 days) to hepatitis A as a household or sexual contact, and
   b. who have not previously received hepatitis A vaccine, and
   c. healthy person aged <12 months, or
   d. healthy person aged > 40 years, or
      (Note: for persons >40 years of age, hepatitis A vaccine can be administered if IG cannot be obtained. Adults older than age 40 years who have an indication for vaccination can and should receive both IG and vaccine.)
   e. hepatitis A vaccine is contraindicated (i.e., immunocompromised, chronic liver disease)

2. **Screen Population:** Screen all patients for contraindications and precautions to hepatitis A IG administration:
   a. **Contraindications:**
      i. isolated Immunoglobulin A (IgA) deficiency
      ii. severe thrombocytopenia (low platelets)
      iii. coagulation (bleeding) disorder
      iv. history of prior systemic allergic reaction to human immunoglobulin preparations
   b. **Precautions:**
      i. none

3. **Administer Vaccine:** Administer 0.02 mL/kg dose of hepatitis A IG injection IM (23 gauge needle) deep in a large muscle mass. For your convenience, refer to the following chart:

IMMUNE GLOBULIN (IG) DOSAGE CONVERSION TABLE

Dosage of IG for post exposure - 0.02 mL/kg IM

Weight (in lbs)	Weight (kg)	Dosage (mL)	Weight (in lbs)	Weight (kg)	Dosage (mL)
10	4.55	0.09	101-110	50	1
11-20	9.09	0.18	111-120	54.55	1.09
21-30	13.64	0.27	121-130	59.09	1.18
31-40	18.18	0.36	131-140	63.64	1.27
41-50	22.73	0.45	141-150	68.18	1.36
51-60	27.27	0.55	151-160	72.73	1.45
61-70	31.82	0.64	161-170	72.73	1.45
71-80	36.36	0.73	171-180	77.27	1.55
81-90	40.91	0.82	181-190	81.82	1.64
91-100	45.45	0.91	191-200	86.36	1.73

Do not inject IG intravascularly

Important: Read the drug insert to determine the amount of IG that should be given to someone weighing over 200 pounds.

TREATMENT NOTE: Round IG dosage to nearest 0.1 mL, e.g. 0.27 mL = 0.3 mL to be administered.

ATTACHMENT 2: *Standing Orders for Administering Hepatitis A Immune Globulin (IG), cont.*

Unless otherwise noted with an *, information in this document mirrors current IAC published guidance **www.immunize.org • www.vaccineinformation.org**

References:

Update: Prevention of Hepatitis A after Exposure to Hepatitis A Virus and in International Travelers. Updated Recommendations of the Advisory Committee on Immunization Practices (ACIP). Retrieved from: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5641a3.htm

ATTACHMENT 2: *Standing Orders for Administering Hepatitis B Vaccine (HBV) to Children & Teens*

Purpose: To reduce morbidity and mortality from hepatitis B virus (HBV) infection by vaccinating all children and teens who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate children and teens through age 18 years who meet any of the criteria below.

Procedure:

1. **Identify Population:** Identify infants, children, and teens who have not begun or have not completed a hepatitis B vaccination series. ‡

2. **Screen Population:** Screen all patients for contraindications and precautions to hepatitis B vaccine:
   a. **Contraindications:** a history of a severe allergic reaction (e.g., anaphylaxis) after a previous dose of hepatitis B vaccine or to a hepatitis B vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
   b. **Precautions:** moderate or severe acute illness with or without fever

3. **Administer Vaccine:**
   a. **Infant, Children and Teens (other than Infants born to Positive and Unknown status HBsAG Mothers):** Administer 0.5 mL hepatitis B vaccine intramuscularly in the anterolateral thigh muscle for infants and toddlers (deltoid may be used for toddlers with adequate muscle mass) or in the deltoid muscle of the arm for children ages 3 yrs and older; the anterolateral thigh muscle may be used if deltoid is inadequate. Use a 22–25g needle. Choose needle length appropriate to the child's age and body mass:
      i. newborns (first 28 days of life) and premature infants: 5/8"
      ii. infants younger than age 12 mos: 1";
      iii. toddlers age 1 through 2 yrs: 1–13" (anterolateral thigh) or 5/8–1" (deltoid muscle)
      iv. children age 3 through 18 yrs: 5/8–1" (deltoid) or 1–13" (anterolateral thigh)

      (Note: A 5/8" needle may be used in children and teens who weigh less than 130 lbs [60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90 degree angle.)

      It is necessary to give 4 doses of HepB when Comvax or Pediarix vaccines are administered after the birth dose. For patients ages 11 through 15 years, an alternative 2-dose schedule using Recombivax-HB adult formulation vaccine may be used; administer 1.0 mL hepatitis B vaccine intramuscularly in the deltoid. (See **Recommended Dosages and Schedules of Single and Combination Hep B Vaccine** table below.)

      Provide subsequent doses of hepatitis B vaccine to complete each patient's 3-dose schedule by observing a minimum interval of:
      i. 4 weeks between the first and second doses
      ii. 8 weeks between the second and third doses
      iii. At least 16 weeks between the first and third doses.
      iv. The last dose in the infant series should not be administered earlier than age 24 weeks.
      v. For patients ages 11–15 years on the 2-dose adult formulation Recombivax-HB schedule, administer the second dose 4–6 calendar months following the first dose

ATTACHMENT 2: ***Standing Orders for Administering Hepatitis B Vaccine (HBV) to Children & Teens, cont.***

Recommended Dosages and Schedules of Single and Combination Hep B Vaccine

Recommended Dosages and Schedules of Hepatitis B Vaccines					
Vaccine	**Age Group**	**Dose**	**Volume**	**# Doses**	Schedule / Dosing Interval
Enerix-B (GlaxoSmithKline)	0–19 yrs	10 µg	0.5 mL	3	Age: birth[1], 1–4, 6–18 mos Dose intervals for older children: 0, 1-2, 4 mos[2]
	20 yrs & older	20 µg	1.0 mL	3	Dose interval: 0, 1, 6 mos[2]
Recombivax HB (Merck)	0–19 yrs	5 µg	0.5 mL	3	Age: birth[1], 1-4, 6-18 mos Dose intervals for older children: 0, 1-2, 4 mos[2]
	11–15 yrs	10 µg	1.0 mL	2	Dose intervals: 0, 4-6, mos[2]
	20 yrs & older	10 µg	1.0 mL	3	Dose intervals: 0, 1, 6 mos[2]

Note: For adult dialysis patients, the Engerix-B dose required is 40 µg/2.0 mL (use the adult 20 µg/1.0 mL formulation) on a schedule of 0, 1, 2, and 6 months. For Recombivax HB, a special formulation for dialysis patients is available. The dose is 40 µg/1.0 mL and it is given on a schedule of 0, 1, and 6 months.

[1] Birth dose administered prior to discharge from the newborn nursery.

[2] The schedule for administering hepatitis B vaccine is flexible and can vary.

Combinations Using Hepatitis A and/or Hepatitis B Vaccines				
Vaccine	**Age Group**	**Volume**	**# Doses**	**Schedule/Dosing Interval**
Comvax[3] Hib+HepB (Merck)	6 wks – 4 yrs	0.5 mL	3	Age: 2, 4, 12–15 mos
Pediarix[3] DTaP+HepB+IPV (GlaxoSmithKline)	6 wks – 6 yrs	0.5 mL	3	Age: 2, 4, 6 mos
Twinrix HepA+HepB (GlaxoSmithKline)	18 yrs & older	1.0 mL	3	Dose intervals: 0, 1, 6 mos
		1.0 mL	4	Dose intervals: 0, 7, 21-30 days, 12 mos.

[3]Cannot be administered before age 6 weeks, but may be used to complete the hepatitis B vaccine series for all infants, including those of HBsAg+ mothers. Either Engerix-B or Recombivax HB should be used for the hepatitis B vaccine birth dose prior to hospital discharge.

b. **Management of Infants born to Positive and Unknown status HBsAG Mothers:**

i. All infants born to HBsAg-positive women who received single-antigen hepatitis B vaccine and HBIG ≤12 hours of birth should receive the remaining hepatitis B injections to complete the vaccine series, as outlined in **Hepatitis B Vaccine Schedules for Newborn Infants, by Maternal Hepatitis B Surface Antigen (HBsAg) Status** table below. The final dose in the vaccine series should not be administered before age 24 weeks (164 days). If HBIG was not administered at birth, and newborn is not more than 7 days old, administer HBIG (0.5mL, IM).

ii. If the mother has never been tested to determine her HBsAg status, the vaccine series should be completed as outlined in **Hepatitis B Vaccine Schedules for Newborn Infants, by Maternal Hepatitis B Surface Antigen (HBsAg) Status** table below. Administration of HBIG is not necessary for these infants.

For preterm infants weighing <2,000 g, the initial vaccine dose (birth dose) should not be counted as part of the vaccine series because of the potentially reduced immunogenicity of hepatitis B vaccine in these infants; 3 additional doses of

vaccine (for a total of 4 doses) should be administered beginning when the infant reaches age 1 month as outlined in **Hepatitis B Immunization Management of Preterm Infants Weighing <2000g, by Maternal Hepatitis B Surface Antigen (HBsAG) Status** table below.

iii. Postvaccination testing for anti-HBs and HBsAg should be performed after completion of the vaccine series, at age 9 - 18 months (generally at the next well-child visit). Testing should not be performed before age 9 months to avoid detection of anti-HBs from HBIG administered during infancy and to maximize the likelihood of detecting late HBV infection. Anti-HBc testing of infants is not recommended because passively acquired maternal anti-HBc might be detected in infants born to HBV-infected mothers to age 24 months.

iv. HBsAg-negative infants with anti-HBs levels ≥10 mIU/mL are protected and need no further medical management.

v. HBsAg-negative infants with anti-HBs levels <10 mIU/mL should be revaccinated with a second 3-dose series and retested 1--2 months after the final dose of vaccine.

vi. Infants who are HBsAg positive should receive appropriate follow-up.
(Note: Although not indicated in the manufacturer's package labeling, HBsAg-containing combination vaccines may be used for infants aged ≥6 weeks born to HBsAg-positive mothers to complete the vaccine series after receipt of a birth dose of single-antigen hepatitis B vaccine and HBIG.)

(‡For persons born in Asia, the Pacific Islands, Africa, or other countries identified as having high rates of HBV infection (see *MMWR* 2005;54 [No. RR-16]:25), ensure that they have also been tested for hepatitis B surface antigen (HBsAg) to find out if they are chronically infected. If test is performed on same visit, administer hepatitis B vaccine after the blood draw. Do not delay initiating hepatitis B vaccination while waiting for test results. If patient is found to be HBsAg-positive, appropriate medical follow-up should be provided; no further doses of hepatitis B vaccine are indicated.

Hepatitis B Vaccine Schedules for Newborn Infants, by Maternal Hepatitis B Surface Antigen (HBsAg) Status

Hepatitis B Vaccine Schedules for Newborn Infants, by Maternal Hepatitis B Surface Antigen (HBsAg) Status[1]				
Maternal HBsAg Status	Single-Antigen Vaccine		Single-Antigen + Combination Vaccine	
	Dose	Age	Dose	Age
Positive	1[2]	Birth(≤12 hrs)	1[2]	Birth(≤12 hrs)
	HBIG[3]	Birth(≤12 hrs)	HBIG	Birth(≤12 hrs)
	2	1-2 mos	2	2 mos
	3[4]	6 mos	3	4 mos
			4[4]	6 mos (Pediarix) or 12-15 mos (Comvax)
Unknown[5]	1[2]	Birth(≤12 hrs)	1[2]	Birth(≤12 hrs)
	2	1-2 mos	2	2 mos
	3[4]	6 mos	3	4 mos
			4[4]	6 mos (Pediarix) or 12-15 mos (Comvax)
Negative	1[2,6]	Birth (before discharge)	1[2,6]	Birth (before discharge)
	2	1-2 mos	2	2 mos
	3[4]	6-18 mos	3	4 mos
			4[4]	6 mos (Pediarix) or 12-15 mos (Comvax)

[1] See Hepatitis B Immunization Management of Preterm Infants Weighing <2,000 g, by Maternal Hepatitis B Surface Antigen (HBsAg) Status table for vaccine schedules for preterm infants weighing <2000 g.

2 Recombivax HB or Engerix-B should be used for the birth dose. Comvax and Pediarix cannot be administered at birth or before age 6 weeks.

[3] Hepatitis B immune globulin (0.5 mL) administered intramuscularly in a separate site from vaccine.

[4] The final dose in the vaccine series should not be administered before age 24 weeks (164 days)

[5] Mothers should have blood drawn and tested for HBsAg as soon as possible after admission for delivery; if the mother is found to be HBsAg positive, the infant should receive HBIG as soon as possible but no later than age 7 days.

[6] On a case-by-case basis and only in rare circumstances, the first dose may be delayed until after hospital discharge for an infant who weighs ≥2000 g and whose mother is HBsAg negative, but only if a physician's order to withhold the birth dose and a copy of the mother's original HBsAg-negative laboratory report are documented in the infant's medical record.

ATTACHMENT 2: *Standing Orders for Administering Hepatitis B Vaccine (HBV) to Children & Teens, cont.*

Hepatitis B Immunization Management of Preterm Infants Weighing <2,000 g, by Maternal Hepatitis B Surface Antigen (HBsAg) Status

Maternal HBsAg Status	Recommendation
Positive	• Administer HBIG[1] + single-antigen hepatitis B vaccine within 12 hrs of birth. • Do not count the birth dose as part of the vaccine series. • Administer 3 additional hepatitis B vaccine doses with - single-antigen vaccine at ages 1, 2–3, and 6 mos, *or* - hepatitis B-containing combination vaccine at ages 2, 4, and 6 mos (Pediarix) or 2, 4, and 12–15 mos (Comvax).[2] • Test for HBsAg and antibody to HBsAg 1–2 mos after completion of ≥3 doses of a licensed hepatitis B vaccine series (i.e., at age 9–18 mos, generally at the next well-child visit). Testing should not be performed before age 9 mos nor within 4 wks of the most recent vaccine dose.
Unknown	• Administer HBIG + single-antigen hepatitis B vaccine within 12 hrs of birth. • Test mother for HBsAg. • Do not count the birth dose as part of the vaccine series. • Administer 3 additional hepatitis B vaccine doses with - single-antigen vaccine at ages 1, 2–3, and 6 mos, *or* - hepatitis B-containing combination vaccine at ages 2, 4, and 6 mos (Pediarix) or 2, 4, and 12–15 mos (Comvax).[2]
Negative	• Delay first dose of hepatitis B vaccine until age 1 mo or hospital discharge. • Complete the hepatitis B vaccine series with - single-antigen vaccine at ages 2 mos and 6–18 mos, *or* - hepatitis B-containing combination vaccine at ages 2, 4, and 6 mos (Pediarix) or 2, 4, and 12–15 mos (Comvax).[2]

[1] Hepatitis B immune globulin

[2] The final dose in the vaccine series should not be administered before age 24 weeks (164 days).

http://www.cdc.gov/hepatitis/hbv/pdfs/correctedtable4.pdf

Unless otherwise noted with an *, information in this document mirrors current IAC published guidance **www.immunize.org • www.vaccineinformation.org**

References:

Combinations Using Hepatitis A and/or Hepatitis B vaccines located online at: http://www.immunize.org/catg.d/p2081.pdf

A Comprehensive Immunization Strategy to Eliminate Transmission of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices (ACIP) Part 1: Immunization of Infants, Children, and Adolescents Retrieved from **http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5416a1.htm?s_cid=rr5416a1_e** and "Corrected Table 4" from **http://www.cdc.gov/hepatitis/hbv/pdfs/correctedtable4.pdf**

ATTACHMENT 2: *Standing Orders for Administering Hepatitis B Vaccine (HBV) to Adults*

Purpose: To reduce morbidity and mortality from hepatitis B virus (HBV) infection by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices. Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate adults who meet any of the criteria below.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate adults who meet any of the criteria below.

Procedure:

1. **Identify Population:** Identify adults with no or unknown history of prior receipt of a complete series of hepatitis B vaccine who are in need of hepatitis B vaccination based on the following criteria‡
   a. Age 19 years or older meeting any of the following criteria:
      i. Patient with end-stage renal disease, including patients receiving hemodialysis; HIV infection; or chronic liver disease
      ii. Sexually active and not in a long-term, mutually monogamous relationship (i.e., more than 1 sex partner during the previous 6 months)
      iii. Under evaluation or treatment for a sexually transmitted infection (STI)
      iv. A male who has sex with males
      v. A current or recent injection-drug user
      vi. At occupational risk of infection through exposure to blood or blood-contaminated body fluids (e.g., healthcare worker, public safety worker, trainee in a health professional or allied health school)
      vii. Client or staff of an institution for persons with developmental disabilities
      viii. Sex partner or household member of a person who is chronically infected with HBV (including an HBsAg-positive adopted child)
      ix. Planned travel to a country with high or intermediate prevalence of chronic HBV infection (a list of countries is available at www.cdc.gov/travel/diseases.htm)
      x. Housed in or seen for care in a setting in which a high proportion of people have risk factors for HBV infection (e.g., STI treatment settings, correctional facilities, institutions for developmentally disabled people)
   b. Age 19 through 59 years with diabetes mellitus
   c. Age 60 years or older with diabetes mellitus, at the discretion of the treating clinician
   d. Any person who wants to be protected from HBV infection and lacks a specific risk factor

2. **Screen Population:** Screen all patients for contraindications and precautions to hepatitis B vaccine:
   a. **Contraindication:** a history of a severe allergic reaction (e.g., anaphylaxis) after a previous dose of hepatitis B vaccine or to a hepatitis B vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
   b. **Precaution:** moderate or severe acute illness with or without fever

3. **Administer Vaccine:** Administer hepatitis B vaccine using dosages outlined in the **Recommended Dosages and Schedules of Hepatitis B Vaccines** table below. Administer vaccine intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle; the anterolateral thigh muscle may be used if deltoid is inadequate. *(Note: a 5/8" needle may be used for adults weighing less than 130 lbs [60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90-degree angle.)* For people age 20 years or older, administer 1.0 mL dose; for people age 19 years or younger, administer 0.5 mL dose.

   Provide subsequent doses of hepatitis B vaccine to complete each patient's 3-dose schedule by observing a minimum interval of
   a. 4 weeks between the first and second doses
   b. 8 weeks between the second and third doses
   c. at least 4 months (16 weeks) between the first and third doses.

ATTACHMENT 2: *Standing Orders for Administering Hepatitis B Vaccine (HBV) to Adults, cont.*

Recommended Dosages and Schedules of Hepatitis B Vaccines

Recommended Dosages and Schedules of Hepatitis B Vaccines					
Vaccine	**Age Group**	**Dose**	**Volume**	**# Doses**	Schedule / Dosing Interval
Enerix-B (GlaxoSmithKline)	0–19 yrs	10 µg	0.5 mL	3	Age: birth[1], 1–4, 6–18 mos Dose intervals for older children: 0, 1-2, 4 mos[2]
	20 yrs & older	20 µg	1.0 mL	3	Dose interval: 0, 1, 6 mos[2]
Recombivax HB (Merck)	0–19 yrs	5 µg	0.5 mL	3	Age: birth[1], 1-4, 6-18 mos Dose intervals for older children: 0, 1-2, 4 mos[2]
	11–15 yrs	10 µg	1.0 mL	2	Dose intervals: 0, 4-6, mos[2]
	20 yrs & older	10 µg	1.0 mL	3	Dose intervals: 0, 1, 6 mos[2]

Note: For adult dialysis patients, the Engerix-B dose required is 40 µg/2.0 mL (use the adult 20 µg/1.0 mL formulation) on a schedule of 0, 1, 2, and 6 months. For Recombivax HB, a special formulation for dialysis patients is available. The dose is 40 µg/1.0 mL and it is given on a schedule of 0, 1, and 6 months.

[1] Birth dose administered prior to discharge from the newborn nursery.

[2] The schedule for administering hepatitis B vaccine is flexible and can vary.

For healthcare personnel who are non-responders, see "Hepatitis B and Healthcare Personnel" at www.immunize.org.

(‡)For persons born in Asia, the Pacific Islands, Africa, or other countries identified as having high rates of HBV infection (see MMWR 2005;54 [No. RR-16]:25), ensure that they have also been tested for hepatitis B surface antigen (HbsAg) to find out if they are chronically infected. If test is performed on same visit, administer hepatitis B vaccine after the blood draw. Do not delay initiating hepatitis B vaccine while waiting for test results. If patient is found to be HbsAg-positive, appropriate medical follow-up should be provided; no further doses of hepatitis B are indicated but completion of hepatitis A vaccination is recommended.

Reference: Combinations Using Hepatitis A and/or Hepatitis B vaccines located online at:
http://www.immunize.org/catg.d/p2081.pdf

***Unless otherwise noted with an *, information in this document mirrors current IAC published guidance* www.immunize.org • www.vaccineinformation.org**

ATTACHMENT 2*: Standing Orders for Administering Hepatitis A and B Vaccine to Adults (Twinrix®)*

Purpose: To reduce morbidity and mortality from hepatitis A (HAV) and hepatitis B virus (HBV) infection by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate adults who meet any of the criteria below.

Procedure:

1. **Identify Population:** Identify adults 18 years of age or older who are in need of both hepatitis B and hepatitis A vaccination based on the following criteria ‡:
   a. Any adult who wants to be protected from hepatitis A and B and lacks a specific risk factor
   b. Patient with end-stage renal disease, including patients receiving hemodialysis; HIV infection; or chronic liver disease
   c. Sexually active and not in a long-term, mutually monogamous relationship (i.e., more than 1 sex partner during the previous 6 months)
   d. Under evaluation or treatment for a sexually transmitted infection (STI)
   e. A male who has sex with males
   f. users of street drugs (injecting and non-injecting)
   g. anticipated travel to a country with high or intermediate endemicity for hepatitis A (i.e., all except the United States, Canada, Japan, Australia, New Zealand, and Western Europe)
   h. Planned travel to a country with high or intermediate prevalence of chronic HBV infection (a list of countries is available at www.cdc.gov/travel/diseases.htm)
   i. persons with clotting factor disorders who receive therapeutic blood products
   j. Client or staff of an institution for persons with developmental disabilities

2. **Screen Population:** Screen all patients for contraindications and precautions to hepatitis A vaccine and hepatitis B vaccine:
   a. **Contraindication:** a history of a severe allergic reaction (e.g., anaphylaxis) after a previous dose of hepatitis A or hepatitis B vaccine or to a hepatitis A or hepatitis B vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
   b. **Precaution:** moderate or severe acute illness with or without fever

3. **Administer Vaccine:** Administer hepatitis B vaccine intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle; the anterolateral thigh muscle may be used if deltoid is inadequate. *(Note: a e" needle may be used for adults weighing less than 130 lbs [60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90-degree angle.)* Standard dosing is 1 mL.

   Standard dosing is a series of 3 doses (1 mL each) given on a 0, 1, and 6 month schedule. Accelerated dosing is a series of 4 doses (1 mL each) given on days 0, 7, and 21-30 followed by a booster dose at month 12. [See **Combination (Twinrix®) Hepatitis A/B Dosing Schedule** table below].

   For healthcare personnel who are non-responders, see "Hepatitis B and Healthcare Personnel" at www.immunize.org.

ATTACHMENT 2: *Standing Orders for Administering Hepatitis A and B Vaccine to Adults (Twinrix®), cont.*

Combination (Twinrix®) Hepatitis A/B Dosing Schedule

Combinations Using Hepatitis A and/or Hepatitis B Vaccines				
Vaccine	**Age Group**	**Volume**	**# Doses**	**Schedule/Dosing Interval**
Comvax[3] Hib+HepB (Merck)	6 wks – 4 yrs	0.5 mL	3	Age: 2, 4, 12–15 mos
Pediarix[3] DTaP+HepB+IPV (GlaxoSmithKline)	6 wks – 6 yrs	0.5 mL	3	Age: 2, 4, 6 mos
Twinrix HepA+HepB (GlaxoSmithKline)	18 yrs & older	1.0 mL	3	Dose intervals: 0, 1, 6 mos
		1.0 mL	4	Dose intervals: 0, 7, 21-30 days, 12 mos.
[3]Cannot be administered before age 6 weeks, but may be used to complete the hepatitis B vaccine series for all infants, including those of HBsAg+ mothers. Either Engerix-B or Recombivax HB should be used for the hepatitis B vaccine birth dose prior to hospital discharge.				

(‡)For persons born in Asia, the Pacific Islands, Africa, or other countries identified as having high rates of HBV infection (see MMWR 2005;54 [No. RR-16]:25), ensure that they have also been tested for hepatitis B surface antigen (HbsAg) to find out if they are chronically infected. If test is performed on same visit, administer Twinrix® vaccine after the blood draw. Do not delay initiating Twinrix® while waiting for test results. If patient is found to be HbsAg-positive, appropriate medical follow-up should be provided; no further doses of Twinrix® are indicated but completion of hepatitis A vaccination is recommended.

Reference: Combinations Using Hepatitis A and/or Hepatitis B vaccines located online at: http://www.immunize.org/catg.d/p2081.pdf

***Unless otherwise noted with an *, information in this document mirrors current IAC published guidance* www.immunize.org • www.vaccineinformation.org**

ATTACHMENT 2: *Standing Orders for Administering Herpes Zoster (Shingles) Vaccine to Adults*

Purpose: To reduce morbidity and mortality from herpes zoster (shingles) by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate adults who meet the criteria below.

Procedure:

1. **Identify Population:** Identify adults who are age 60 years or older and have no history of prior receipt of zoster vaccine.

2. **Screen Population:** Screen all patients for contraindications and precautions to zoster vaccine:
   - **a. Contraindications:**
     - i. a history of a severe allergic reaction (e.g., anaphylaxis) to a vaccine component, including gelatin and neomycin. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
     - ii. primary or acquired immunodeficiency, including
       1. leukemia, lymphomas, or other malignant neoplasms affecting the bone marrow or lymphatic system
       2. AIDS or other clinical manifestations of HIV, including persons with CD4+ T-lymphocyte values <200 per mm3 or <15% of total lymphocytes
       3. current immunosuppressive therapy, including high-dose corticosteroids (>20 mg/day of prednisone or equivalent) lasting two or more weeks
       4. clinical or laboratory evidence of other unspecified cellular immunodeficiency
       5. receipt of or history of hematopoietic stem cell transplantation
       6. current receipt of recombinant human immune mediators and immune modulators, especially the antitumor necrosis factor agents adalimumab, infliximab, and etanercept
     - iii. pregnancy or possibility of pregnancy within 4 weeks of receiving vaccine
   - **b. Precautions:**
     - i. moderate or severe acute illness with or without fever
     - ii. receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination; avoid use of the antiviral drugs for 14 days after vaccination
3. **Administer Vaccine:** Administer entire amount (approximately 0.65 mL) of reconstituted zoster vaccine subcutaneously (23–25g, 5/8" needle) in the posterolateral fat of the upper arm. Zoster vaccine must be stored frozen. Reconstitute and administer zoster vaccine immediately after removing it from the freezer. Do NOT transport zoster vaccine from a pharmacy to another office where it will be administered.

ATTACHMENT 2: *Standing Orders for Administering Human Papillomavirus Vaccine (HPV) to Children and Teens*

Purpose: To reduce morbidity and mortality from human papillomavirus (HPV) infection by vaccinating all children and teens who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate children and teens who meet the criteria below.

Procedures:

1. **Identify Population:** Identify all children and teens ages 11 years and older who have not completed the HPV vaccination series.

2. **Screen Population:** Screen all patients for contraindications and precautions to HPV vaccine:
   a. **Contraindications:** a history of a serious allergic reaction (e.g., anaphylaxis) after a previous dose of HPV vaccine or to a HPV vaccine component (e.g., yeast for quadrivalent or 9-valent HPV vaccine [4vHPV or 9vHPV: Gardasil, Merck] or latex for bivalent HPV vaccine [2vHPV: Cervarix, GSK]). For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
   b. Precautions:
      i. Moderate or severe acute illness with or without fever
      ii. Pregnancy; delay vaccination until after completion of the pregnancy

3. **Administer Vaccine:** Provide:
   a. 2vHPV, 4vHPV, or 9vHPV to girls
   b. 4vHPV4 or 9vHPV to boys
   c. Provide either vaccine in a 3-dose schedule at 0, 1–2, and 6 calendar months. Provide routine vaccination with HPV vaccine to girls and boys at age 11 or 12 years; vaccine may be administered to girls or boys as young as age 9 years. *9vHPV vaccine is preferred if available.

   Administer 0.5 mL HPV vaccine intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle; the anterolateral thigh muscle may be used if deltoid is inadequate.
   (Note: a 5/8" needle may be used for children and teens weighing less than 130 lbs [60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90° angle.)

   For children and teens who have not received HPV vaccine at the ages and/or intervals specified in #4, administer one dose at the earliest opportunity and then schedule subsequent doses to complete the 3-dose schedule by observing a minimum interval of
   a. 4 weeks between the first and second doses
   b. 12 weeks between the second and third doses
   c. at least 24 weeks between the first and third doses.

ATTACHMENT 2: *Standing Orders for Administering Human Papillomavirus (HPV) Vaccine to Adults*

Purpose: To reduce morbidity and mortality from human papillomavirus (HPV) infection by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate adults who meet the criteria below.

Procedure:

1. **Identify Population:** Identify adults in need of vaccination against human papillomavirus (HPV) based on the following criteria:
   a. Female, age 26 years or younger
   b. Male, age 21 years or younger
   c. Male, age 22 through 26 years meeting any of the following conditions:
      i. Immunocompromised as a result of infection (including HIV), disease, or medications
      ii. Has sex with other males
      iii. Wants to be vaccinated and lacks any of the above criteria

2. **Screen Population:** Screen all patients for contraindications and precautions to HPV vaccine:
   a. **Contraindications:** a history of a severe allergic reaction (e.g., anaphylaxis) after a previous dose of HPV vaccine or to a HPV vaccine component (e.g., yeast for quadrivalent or 9-valent HPV vaccine [4vHPV or 9vHPV: Gardasil, Merck] or latex for bivalent HPV vaccine [2vHPV: Cervarix, GSK]). For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
   b. **Precautions:**
      i. Moderate or severe acute illness with or without fever
      ii. Pregnancy; delay vaccination until after completion of the pregnancy

3. **Administer Vaccine:** Provide:
   a. 2vHPV, 4vHPV, or 9vHPV to women
   b. 4vHPV or 9vHPV to men
   c. Provide either vaccine in a 3-dose schedule at 0, 1–2, and 6 calendar months.
      *9vHPV vaccine is preferred if available.

   Administer 0.5 mL HPV vaccine intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle; the anterolateral thigh muscle may be used if deltoid is inadequate.
   (Note: a 5/8" needle may be used for adults weighing less than 130 lbs [60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90° angle.)

   For adults who have not received HPV vaccine at the intervals specified in #4, administer subsequent doses of HPV vaccine to complete each patient's 3-dose schedule by observing a minimum interval of
   a. 4 weeks between the first and second doses
   b. 12 weeks between the second and third dose
   c. at least 24 weeks between the first and third doses
   d. Men age 27 years and older who meet the criteria of 1.c.i. or 1.c.ii. above and women age 27 years and older who have received at least 1 dose before their 27th birthday should complete the 3-dose series as soon as feasible. Men age 22 years and older who have received at least 1 dose before their 22nd birthday should also complete the 3-dose series as soon as feasible.

ATTACHMENT 2: *Standing Orders for Administering Influenza Vaccines to Children and Adolescents*

Purpose: To reduce morbidity and mortality from influenza by vaccinating all children and adolescents who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices (ACIP).

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate children and adolescents who meet any of the criteria below.

Procedure:

1. **Identify Population:** Identify children and adolescents age 6 months and older who have not completed their influenza vaccination(s) for the current influenza season.

2. **Screen Population:** Screen all patients for contraindications and precautions to influenza vaccine:
   a. **Contraindications:**
      i. A history of a serious reaction (e.g., anaphylaxis) after a previous dose of influenza vaccine or to an influenza vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
      ii. For live attenuated influenza vaccine (LAIV, nasal spray) only:
         1. either an anaphylactic or non-anaphylactic history of allergy to eggs
         2. pregnancy
         3. children younger than age 2 yrs
         4. children age 2 through 4 yrs who have experienced wheezing or asthma within the past 12 mos, based on a healthcare provider's statement
         5. immunosuppression, including that caused by medications or HIV
         6. long-term aspirin therapy (applies to a child or adolescent age 6 mos through 17 yrs)
         7. receipt of influenza antivirals (e.g., amantadine, rimantadine, zanamivir, or oseltamivir) within the previous 48 hours or possibility of use within 14 days after vaccination
         8. provide care for severely immunosuppressed people who require a protective environment
   b. **Precautions:**
      i. Moderate or severe acute illness with or without fever;
      ii. History of Guillain-Barré syndrome within 6 weeks of a previous influenza vaccination;
      iii. For live attenuated influenza vaccine (LAIV, nasal spray) only:
         1. children or adolescents age 5 years or older with asthma
         2. a medical condition which might predispose the child to higher risk for complications attributable to influenza (e.g., chronic pulmonary, cardiovascular [excluding isolated hyper- tension], renal, hepatic, neurologic, hematologic, or metabolic [e.g., diabetes] disorders)
   c. **Other considerations:** onset of hives only after ingesting eggs: healthcare providers should administer inactivated influenza vaccine (IIV) and observe the patient for at least 30 minutes after receipt of the vaccine for signs of a reaction.

3. **Administer Vaccine:** Administer IIV or LAIV as follows
   (Note: When immediately available, ACIP recommends use of LAIV in healthy children ages 2 through 8 years who have no contraindications or precautions. If LAIV is not immediately available, IIV should be administered.):
   a. **IIV:** Administer IIV intramuscularly in the vastus lateralis for infants (and toddlers lacking adequate deltoid mass) or in the deltoid muscle (for toddlers, children, and teens). Use a 22–25 g needle. Choose needle length appropriate to the child's age and body mass: infants 6 through 11 mos: 1"; 1 through 2 yrs: 1– 1 ¼"; 3yrs and older: 1– 1 ½". Give 0.25 mL (Fluzone only) to children 6–35 mos and 0.5 mL to all others age 3 yrs and older.
   (Note: A 5/8" needle may be used for patients weighing less than 130 lbs [60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90-degree angle.)

   b. **LAIV:** For children ages 2 yrs and older, administer 0.2 mL of LAIV intranasally by spraying 0.1 mL into each nostril while the patient is in an upright position.

ATTACHMENT 2: ***Standing Orders for Administering Influenza Vaccines to Children and Adolescents, cont.***

c. Children age 6 mos through 8 yrs should receive a second dose of either IIV or LAIV 4 wks or more after the first dose if they
   i. are receiving influenza vaccine for the first time, or
   ii. did not get at least 1 dose of influenza vaccine for the 2013–14 season, or

   iii. did not get at least 2 doses of seasonal influenza vaccine since July 1, 2010, or
   iv. did not get 2 or more doses of seasonal vaccine before July 1, 2010, and at least 1 dose of monovalent 2009 H1N1 vaccine, or
   v. did not get 1 or more doses of seasonal vaccine before July 1, 2010, and 1 or more doses of seasonal vaccine since July 1, 2010

ATTACHMENT 2: *Standing Orders for Administering Influenza Vaccine to Adults*

Purpose: To reduce morbidity and mortality from influenza by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate patients who meet any of the criteria below

Procedure:

1. **Identify Population:** Identify adults with no history of influenza vaccination for the current influenza season.

2. **Screen Population:** Screen all patients for contraindications and precautions to influenza vaccine:
   a. **Contraindications:**
      i. A serious systemic or anaphylactic reaction to a prior dose of the vaccine or to any of its components. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
      ii. For live attenuated influenza vaccine (LAIV, nasal spray) only:

1. history of either an anaphylactic or non- anaphylactic allergy to eggs
2. pregnancy
3. immunosuppression (including that caused by medications or HIV)
4. age 50 years or older
5. receipt of influenza antivirals (e.g., amantadine, rimantadine, zanamivir, or oseltamivir) within the previous 48 hours or the possibility of influenza antiviral use within 14 days after vaccination
6. provides care for a severely immunosuppressed person who requires a protective environment.

   b. **Precautions:**
      i. Moderate or severe acute illness with or without fever;
      ii. History of Guillain Barré syndrome within 6 weeks of a previous influenza vaccination
      iii. For live attenuated influenza vaccine (LAIV, nasal spray) only, an adult with a medical condition which might predispose the adult to higher risk of complications attributable to influenza (e.g., chronic pulmonary [including asthma], cardiovascular [excluding isolated hypertension], renal, hepatic, neurologic/neuromuscular, hematologic, or metabolic [including diabetes] disorders.
   c. **Other considerations:** an egg-free recombinant hemagglutin influenza vaccine (RIV) may be used for people age 18 years and older with egg allergy of any severity. People who experience onset of hives only after ingesting eggs: healthcare providers should administer inactivated influenza vaccine (IIV) and observe the patient for at least 30 minutes after receipt of the vaccine for signs of a reaction.

3. **Administer Vaccine:** Administer influenza vaccine as follows:
   a. For **LAIV**:
   For healthy adults younger than age 50 years, give 0.2 mL of intranasal LAIV; 0.1 mL is sprayed into each nostril while the patient is in an upright position.
   b. For **RIV**:
   Give 0.5 mL RIV to adults age 18 years and older, intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle. *(Note: A 5/8" needle may be used for adults weighing less than 130 lbs [<60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90 degree angle.)*
   c. For **IIV**:
      i. Give 0.5 mL of IIV to adults of all ages intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle, or *(Note: A 5/8" needle may be used for adults weighing less than 130 lbs [<60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90 degree angle.)*
      ii. For adults age 18 through 64 years, give 0.1 mL IIV-ID intradermally by inserting the needle of the microinjection system at a 90 degree angle in the deltoid muscle.
      iii. For adults age 65 years and older, give 0.5 mL of high-dose IIV-IM intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle.

ATTACHMENT 2: *Standing Orders for Administering Measles, Mumps & Rubella (MMR) Vaccine to Children & Teens*

Purpose: To reduce morbidity and mortality from measles, mumps, and rubella by vaccinating all children and teens who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate children and teens who meet any of the criteria below.

Procedures:

1. **Identify Population:** Identify children and teens ages 12 months and older in need of vaccination against measles, mumps, and rubella.

2. **Screen Population:** Screen all patients for contraindications and precautions to measles, mumps, and rubella (MMR) vaccine:
   a. **Contraindications:**
      i. a history of a serious reaction (e.g., anaphylaxis) after a previous dose of MMR vaccine or to an MMR vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
      ii. pregnant now or may become pregnant within 1 month
      iii. known severe immunodeficiency (e.g., hematologic and solid tumors; congenital immunodeficiency; prolonged [14 days or longer] high-dose steroid therapy; severely immunocompromised from HIV infection)
   b. **Precautions:**
      i. recent receipt (within the previous 11 months) of antibody-containing blood product (specific interval depends on product)
      ii. history of thrombocytopenia or thrombocytopenic purpura
      iii. moderate or severe acute illness with or without fever

3. **Administer Vaccine:** Provide routine vaccination with MMR vaccine at age 12–15 months and at 4–6 years. Administer 0.5 mL MMR vaccine subcutaneously (23–25g, 5/8" needle) in the posterolateral fat of the upper arm.

   For children and teens who have not received MMR vaccine at the ages specified, give one dose at the earliest opportunity and then schedule a second dose, if needed, by observing a minimum interval of 4 weeks between doses.

ATTACHMENT 2: *Standing Orders for Administering Measles, Mumps & Rubella (MMR) Vaccine to Adults*

Purpose: To reduce morbidity and mortality from measles, mumps, and rubella by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate adults who meet any of the criteria below.

Procedure:

1. **Identify Population:**
   a. Identify adults in need of initial vaccination against measles, mumps, or rubella who
      i. were born in 1957 or later with no history of receipt of live measles-, mumps-, and/or rubella-containing vaccine given at age 12 months or older or other acceptable evidence of immunity (e.g., laboratory evidence)
      ii. are women of any age planning to become pregnant and who do not have evidence of immunity, or
      iii. are healthcare workers born before 1957 without evidence of immunity

   b. Identify adults in need of a second dose of MMR vaccine who
      i. were born in 1957 or later and are either planning to travel internationally, or are a student in a college, university, technical, or vocational school, or
      ii. are healthcare workers born before 1957 at potential risk of infection from a current mumps outbreak

2. **Screen Population:** Screen all patients for contraindications and precautions to measles, mumps, and rubella (MMR) vaccine:
   a. **Contraindications:**
      i. a history of a serious reaction (e.g., anaphylaxis) after a previous dose of MMR vaccine or to an MMR vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
      ii. pregnant now or may become pregnant within 1 month
      iii. known severe immunodeficiency, hematologic and solid tumors; congenital immunodeficiency; receiving long-term immunosuppressive therapy, severely immunocompromised from HIV infection, including CD4+ T-lymphocyte count of less than 200 cells per µL
   b. **Precautions:**
      i. recent (within the past 11 months) receipt of antibody-containing blood product (specific interval depends on product)
      ii. history of thrombocytopenia or thrombocytopenic purpura
      iii. moderate or severe acute illness with or without fever

3. **Administer Vaccine:** Administer 0.5 mL MMR vaccine subcutaneously (23–25g, 5/8" needle) in the posterolateral fat of the upper arm.

   For adults in need of a second dose of MMR, observe a minimum interval of 4 weeks between the first and second doses.

ATTACHMENT 2: *Standing Orders for Administering Measles, Mumps, Rubella, and Varicella (MMRV ProQuad®) Vaccine to Children & Teens*

Purpose: To reduce morbidity and mortality from measles, mumps, and rubella and varicella by vaccinating all children and teens who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunizations.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate children and teens who meet any of the criteria below.

Procedures:

1. **Identify Population:** Identify children and teens age 12 months to 12 years of age in need of vaccination against measles, mumps, and rubella and varicella.
   (Note: Because HIV-infected children are at increased risk for morbidity from varicella and herpes zoster (shingles), single-antigen varicella vaccine should be considered for HIV-infected children with CD4+ T-lymphocyte percentages greater than or equal to 15% as well as for children age 9 years and older with CD4+ T-lymphocytes count greater than or equal to 200 cells per microliter.)

2. **Screen Population:** Screen all patients for contraindications and precautions to measles, mumps, and rubella and varicella.
   a. **Contraindications:**
      i. A history of a serious reaction (e.g., anaphylaxis) after a previous dose of MMR, MMRV vaccine, or to an MMR/MMRV vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
      ii. Pregnant now or may become pregnant within 1 month
      iii. Having any malignant condition, including blood dyscrasias, leukemia, lymphomas of any type, or other malignant neoplasms affecting the bone marrow or lymphatic systems
      iv. Receiving high-dose systemic immunosuppressive therapy (e.g. two weeks or more of daily receipt of 20 mg or more [or 2 mg/kg body weight or more] or prednisone or equivalent)
      v. Family history of congenital or hereditary immunodeficiency in first-degree relatives (e.g. parents, siblings) unless the immune competence of the potential vaccine recipient has been clinically substantiated or verified by a laboratory
      vi. A child age 1 year or older with CD4+ T-lymphocyte percentages less than 15% or a child or teen age 6 years or older with CD4+ T-lymphocytes count less than 200 cells per microliter
      vii. Primary or acquired immunodeficiency, including immunosuppression associated with AIDS or other clinical manifestations of HIV infections, cellular immunodeficiency's, hypogammaglobinemia, and dysgammaglobulinemia
      viii. Active untreated tuberculosis
      ix. Active febrile illness with fever >101.3F
   b. **Precautions:**
      i. Recent receipt (within previous 11 months) of antibody-containing blood product (specific interval depends on product)
      ii. History of thrombocytopenia or thrombocytopenic purpura
      iii. Moderate or severe acute illness with or without fever
      iv. Receipt of specific antivirals (i.e. acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination, avoid use of these antiviral drugs for 14 days after vaccination
      v. **Give MMR and Varicella separately for first dose unless parent insists on MMRV**. If so, educate parent on increased risk of febrile seizure during the 5th through 12th days after vaccination

3. **Administer Vaccine:** Provide MMRV vaccine at age 12-15 months and MMRV at 4-6 years. Administer 0.5 mL MMRV vaccine subcutaneously (23-25 g, 5/8" needle) in the posterolateral fat of the upper arm.

   For children who have not received MMRV vaccine at the ages specified, give one dose at the earliest opportunity and then schedule a second dose, if needed, by observing a minimum interval of 12 weeks between doses.

ATTACHMENT 2: *Standing Orders for Administering Meningococcal ACWY Vaccine to Children and Teens*

Purpose:
To reduce morbidity and mortality from meningococcal disease caused by serotypes A, C, W, or Y by vaccinating all children and teens who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy:
Where allowed by state law, standing orders enable eligible nurses and other healthcare professionals (e.g., pharmacists) to assess the need for and vaccinate children and teens who meet any of the criteria below.

Procedures

1. Identify Population: Assess children and teens for need of vaccination against meningococcal disease according to the following criteria:
   a. Routine meningococcal ACWY vaccination
      i. Age 11–12 years and not previously vaccinated
      ii. As catch-up for ages 13–15 years and not previously vaccinated
      iii. Age 16 through 18 years and in need of dose #2
      iv. As catch-up for unvaccinated teens ages 16 through 18 years
      v. Anticipated new college student or a student who previously attended an institution of higher education or private or independent institution of higher education before January 1, 2012 who
         A. is enrolling in the same or another institution of higher education or private or independent institution of higher education following a break in enrollment of at least one fall or spring semester and*
         B. is lacking documentation of receipt of quadrivalent meningococcal conjugate vaccine (MCV4) during the five-year period prior to enrolling and at age 16 years or older*
   b. Risk-based meningococcal ACWY vaccination
      i. Age 2 months and older with diagnosis of persistent complement component deficiency (an immune system disorder) or diagnosis of anatomic or functional asplenia (including sickle-cell disease); children who are part of an outbreak attributable to a vaccine serogroup; or anticipated travel to a country where meningococcal disease is hyperendemic or epidemic (e.g., the "meningitis belt" of sub-Saharan Africa), particularly if contact with the local population will be prolonged

2. Screen Population: Screen for contraindications and precautions
   a. **Contraindications:** a history of a serious allergic reaction (e.g., anaphylaxis) after a previous dose of meningococcal vaccine or to a meningococcal vaccine component. For information on vaccine components, refer to the manufacturer's package insert (www.immunize.org/packageinserts) or go to www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
   b. Refer pregnant women eligible for meningococcal ACWY vaccine to primary care provider to determine to vaccinate.
   c. **Precaution**: moderate or severe acute illness with or without fever

3. Administer Vaccine:
   a. Prepare to Administer Vaccine

Choose the needle gauge, needle length, and injection site according to the following chart:

AGE OF PATIENT	NEEDLE GAUGE	NEEDLE LENGTH	INJECTION SITE
Adolescents (age 11–21 years)	22–25	5/8*–1"	Deltoid muscle of arm
Children (age 3–10 years)	22–25	5/8*–1"	Deltoid muscle of arm
Toddlers (age 1–2 years)	22–25	1–1¼"	Anterolateral thigh muscle
Infants (age 2–12 months)	22–25	1"	Anterolateral thigh muscle

Note: A 5/8" needle may be used in patients weighing less than 130 lbs (<60 kg) for IM injection in the deltoid muscle only if the skin is stretched tight, the subcutaneous tissue is not bunched, and the injection is made at a 90-degree angle to the skin.

ATTACHMENT 2: *Standing Orders for Administering Meningococcal ACWY Vaccine to Children and Teens, cont.*

b. Administer 0.5 mL vaccine via the intramuscular (IM) route

Schedule and criteria for routine vaccination with MenACWY

AGE OF PATIENT	SCHEDULE
For preteens age 11 through 12 years	Give dose #1 of 2-dose MenACWY series.[1] (Dose #2 will be due at age 16 years.)
For teens age 13 through 15 years	Give catch-up dose #1 of 2-dose MenACWY series.[1] (Dose #2 will be due at age 16 years)
For teens age 16 through 18 years	Give dose #2 of MenACWY. Separate from dose #1 by at least 8 weeks.[1]
Catch-up for teens age 16 through 18 years	If no history of prior vaccination with MenACWY, give 1 dose of MenACWY.
For first year college students, age 19 through 21 years, living in residence halls	If no history of prior vaccination with MenACWY, give 1 dose of MenACWY.[1] If history of 1 dose of MenACWY given when younger than age 16 years, give dose #2 of MenACWY.[2]

1. If person is HIV-positive, give 2 doses, 2 months apart.
2. The minimum interval between doses of MenACWY is 8 weeks.

c. Schedule and criteria for MenACWY vaccination in people with underlying medical conditions or other risk factors for children, adolescents, and teens with risk factors as identified in section 1 on the previous page, refer to **Meningococcal Vaccination Recommendations by Age and Risk Factor for Serogroups A, C, W, or Y Protection** table below or at www.immunize.org/catg.d/p2018.pdf.

ATTACHMENT 2: ***Standing Orders for Administering Meningococcal ACWY Vaccine to Children and Teens, cont.***

Meningococcal Vaccine Recommendations by Age and Risk Factor for Serogroups A, C, W or Y Protection

Meningococcal Vaccine Recommendations by Age and Risk Factor for Serogroups A, C, W, or Y Protection

A separate vaccine is needed for protection against meningococcal serogroup B disease.

MenACWY = Menactra (sanofi) and Menveo (Novartis)
MenACWY-D = Menactra **Hib-MenCY** = MenHibrix (GlaxoSmithKline)
MenACWY-CRM = Menveo **MPSV** = Menomune (sanofi)

Routine Recommendations for Quadrivalent Meningococcal Conjugate Vaccine (MenACWY)	
For preteens age 11 through 12 years	Give dose #1 of 2-dose MenACWY series.[1] (Dose #2 will be due at age 16 years.)
For teens age 13 through 15 years	Give catch-up dose #1 of 2-dose MenACWY series. (Dose #2 will be due at age 16 years.)
For teens age 16 through 18 years	Give dose #2 of MenACWY. Separate from dose #1 by at least 8 weeks.
Catch-up for teens age 16 through 18 years	If no history of prior vaccination with MenACWY, give 1 dose of MenACWY.
For first year college students, age 19 through 21 years, living in residence halls	If no history of prior vaccination with MenACWY, give 1 dose of MenACWY.[1] If history of 1 dose of MenACWY given when younger than age 16 years, give dose #2 of MenACWY.[2]

Risk-based Recommendations for Persons with Underlying Medical Conditions or Other Risk Factors		
TARGETED GROUP BY AGE AND/OR RISK FACTOR	**PRIMARY DOSE(S)**	**BOOSTER DOSE(S)**
Travelers to or residents of countries where meningococcal disease is hyperendemic or epidemic,[3] people present during outbreaks caused by a vaccine serogroup,[4] and other people with prolonged increased risk for exposure (e.g., microbiologists routinely working with *Neisseria meningitidis*)		
For children age 2 through 18 months	Give MenACWY-CRM at ages 2, 4, 6 and 12–15 months.[5]	If risk continues, give initial booster after 3 years followed by boosters every 5 years.
For children age 7 through 23 months who have not initiated a series of MenACWY-CRM or Hib-MenCY	Give 2 doses, separated by 3 months,[6] of MenACWY-CRM (if age 7–23 months)[7] or MenACWY-D (if age 9–23 months).	
For age 2 through 55 years	Give 1 dose of MenACWY.[1]	Boost every 5 years with MenACWY.[8,9]
For age 56 years and older	If no previous MenACWY dose and either short-term travel or outbreak-related, give 1 dose of MPSV; all others, give 1 dose of MenACWY.	Boost every 5 years with MenACWY.[9]
People with persistent complement component deficiencies[10]		
For age 2 through 18 months	Give MenACWY-CRM or Hib-MenCY at ages 2, 4, 6 and 12–15 months	Give MenACWY booster after 3 years followed by boosters every 5 years thereafter.
For children age 7 through 23 months who have not initiated a series of MenACWY-CRM or Hib-MenCY	Give 2 doses, separated by 3 months, of MenACWY-CRM (if age 7–23 months)[7] or MenACWY-D (if age 9–23 months).	
For ages 2 through 55 years	Give 2 doses of MenACWY, 2 months apart.	Boost every 5 years with MenACWY.[8,11]
For age 56 years and older	Give 2 doses of MenACWY, 2 months apart.	Boost every 5 years with MenACWY.[11]
People with functional or anatomic asplenia, including sickle cell disease		
For children age 2 through 18 months	Give MenACWY-CRM or Hib-MenCY at ages 2, 4, 6 and 12–15 months.	Give MenACWY booster after 3 years followed by boosters every 5 years thereafter.
For children age 19 through 23 months who have not initiated a series of MenACWY-CRM or Hib-MenCY	Give 2 doses of MenACWY-CRM, 3 months apart.	
For children age 2 through 55 years	Give 2 doses of MenACWY, 2 months apart.[12]	Boost every 5 years with MenACWY.[8,11]
For age 56 years and older	Give 2 doses of MenACWY, 2 months apart.	Boost every 5 years with MenACWY.[11]

FOOTNOTES

1. If the person is HIV-positive, give 2 doses, 2 months apart.
2. The minimum interval between doses of MenACWY is 8 weeks.
3. Prior receipt of Hib-MenCY is not sufficient for children traveling to the Hajj or African meningitis belt as it doesn't provide protection against serogroups A or W.
4. Seek advice of local public health authorities to determine if vaccination is recommended.
5. Children ages 2 through 18 months who are present during outbreaks caused by serogroups C or Y may be given an age-appropriate series of Hib-MenCY.
6. If a child age 7 through 23 months will enter an endemic area in less than 3 months, give doses as close as 2 months apart.
7. If using MenACWY-CRM, dose 2 should be given no younger than age 12 months.
8. If primary dose(s) given when younger than age 7 years, give initial booster after 3 years, followed by boosters every 5 years.
9. Booster doses are recommended if the person remains at increased risk.
10. Persistent complement component deficiencies include C3, C5–C9, properdin, factor H, and factor D.
11. If the person received a 1-dose primary series, give booster at the earliest opportunity, then boost every 5 years.
12. Children with functional or anatomic asplenia should complete an age-appropriate series of PCV13 vaccine before vaccination with MenACWY-D; MenACWY-D should be given at least 4 weeks following last dose of PCV13. MenACWY-CRM or Hib-MenCY may be given at any time before or after PCV13.

Technical content reviewed by the Centers for Disease Control and Prevention

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www.immunize.org/catg.d/p2018.pdf • Item #P2018 (7/15)

ATTACHMENT 2: *Standing Orders for Administering Meningococcal B Vaccine to Adolescents & Adults*

Purpose:
To reduce morbidity and mortality from serogroup B meningococcal disease by vaccinating all adolescents and adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices (ACIP).

Policy:
Where allowed by state law, standing orders enable eligible nurses and other healthcare professionals (e.g., pharmacists) to assess the need for and vaccinate children and teens who meet any of the criteria below.

Procedures

1. Assess adolescents and adults for need of vaccination against meningococcal serogroup B disease according to the following criteria:
   a. Age 16 through 23 years who desire to be vaccinated. The ACIP-preferred age is 16 through 18 years.
   b. Age 10 years and older, including all adults, with
      - Diagnosis of persistent complement component deficiency (e.g., inherited chronic deficiencies in C3, C5–C9, properdin, factor D and factor H) or taking eculizumab (Soliris)
      - Diagnosis of anatomic or functional asplenia (including sickle cell disease)
      - Risk of potential exposure due to an outbreak attributable to serogroup B
      - Microbiologists routinely exposed to isolates of *Neisseria meningitidis*

4. Screen Population: Screen for contraindications and precautions
   a. **Contraindications:**
   Do not give meningococcal B vaccine to an adolescent or adult who has experienced a serious systemic or anaphylactic reaction to a prior dose of meningococcal B vaccine or to any of its components. For information on vaccine components, refer to the manufacturer's package insert (www.immunize.org/packageinserts) or go to www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
   b. **Precaution**: moderate or severe acute illness with or without fever

5. Administer Vaccine:
   a. Prepare to Administer Vaccine
   Choose the needle gauge, needle length, and injection site according to the following chart:

AGE OF PATIENT	NEEDLE GAUGE	NEEDLE LENGTH	INJECTION SITE
Adolescents (age 11–21 years)	22–25	5/8*–1"	Deltoid muscle of arm
Children (age 3–10 years)	22–25	5/8*–1"	Deltoid muscle of arm
Toddlers (age 1–2 years)	22–25	1–1¼"	Anterolateral thigh muscle
Infants (age 2–12 months)	22–25	1"	Anterolateral thigh muscle

Note: A 5/8" needle may be used in patients weighing less than 130 lbs (<60 kg) for IM injection in the deltoid muscle only if the skin is stretched tight, the subcutaneous tissue is not bunched, and the injection is made at a 90-degree angle to the skin.

   b. Administer 0.5 mL vaccine via the intramuscular (IM) route

Schedule for vaccination

TYPE OF VACCINE	AGE GROUP	DOSE	SCHEDULE
Bexsero (Men B – 4c, Glaxo SmithKline	10 years and older	0.5 mL	Two doses, 4 weeks apart
Trumenba (Men B – FHbp, Pfizer)	10years and older	0.5 mL	Three doses at 0, 2, and 6 months

Note: The two brands of MenB vaccine are not interchangeable. The series must be started and completed with the same brand of vaccine.

ATTACHMENT 2: *Standing Orders for Administering Meningococcal Vaccine to Adults*

Purpose: To reduce morbidity and mortality from meningococcal disease by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate adults who meet any of the criteria below.

Procedure:

1. **Identify Population:** Identify adults in need of vaccination against meningococcal disease based on **any** of the following criteria:
   a. New or returning college student who
      i. previously attended an institution of higher education or private or independent institution of higher education before January 1, 2012, and
      ii. is enrolling in the same or another institution of higher education or private or independent institution of higher education following a break in enrollment of at least one fall or spring semesters, and
      iii. is age 19 through 21 years, and
      iv. is lacking documentation of receipt of quadrivalent meningococcal conjugate vaccine (MCV4)during the five-year period prior to enrolling and at age 16 years or older*
   b. Anticipated travel to a country in the "meningitis belt" of sub-Saharan Africa or other location of epidemic meningococcal disease, particularly if contact with the local population will be prolonged
   c. Diagnosis of anatomic or functional asplenia, including sickle-cell disease
   d. Diagnosis of persistent complement component deficiency (an immune system disorder)
   e. Employment as a microbiologist with routine exposure to isolates of *N. meningitidis*
   f. Anticipated travel to Mecca, Saudi Arabia, for the annual Hajj
   g. Military recruits
   h. History of receiving either MCV4 or meningococcal polysaccharide vaccine (MPSV4: Menomune [sanofi]) at least 5 years earlier and having continued risk for infection (e.g., living in or recurrent travel to epidemic disease areas).

2. **Screen Population:** Screen all patients for contraindications and precautions to meningococcal vaccine:
   a. **Contraindications:** a history of a serious allergic reaction (e.g., anaphylaxis) after a previous dose of meningococcal vaccine or to a meningococcal vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
   b. Refer pregnant women eligible for meningococcal ACWY vaccine to primary care provider for determination to vaccinate.
   c. **Precautions:** moderate or severe acute illness with or without fever

3. **Administer Vaccine:** For adults ages 55 years and younger, administer 0.5 mL MCV4 via the intramuscular route (22–25g, 1–1½" needle) in the deltoid muscle.
   (Note: a 5/8" needle may be used for patients weighing less than 130 lbs [<60kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90-degree angle.)
   a. For adults age 56 years and older who have not received MCV4 previously and anticipate needing only 1 dose, administer 0.5 mL MPSV4 via the subcutaneous route (23–25g, 5/8" needle) in the posterolateral fat of the upper arm.
   b. For adults age 56 years and older who have received MCV4 previously or anticipate needing multiple doses (e.g., 1.b. through 1.e. above), administer MCV4.
   (Note: If the person has a permanent contraindication or precaution to MCV4, or if MCV4 is unavailable and immediate protection is needed, MPSV4 is an acceptable alternative, although it must be given subcutaneously.)

   Schedule additional vaccination as follows:
   a. For adults ages 55 years and younger who are either identified above in 1.c. or 1.d., or who have HIV infection and meet any of the criteria above, give 2 doses of MCV4, 2 months apart.
   b. For adults who remain at high risk (e.g., categories 1b through 1e above), give 1 dose every 5 years.

   Provide vaccination to children and teens with risk factors on a schedule as outlined in ***Meningococcal Vaccination Recommendations by Age and Risk Factor for Serogroups a, C, W, or Y Protection*** table above.

Unless otherwise noted with an *, information in this document mirrors current IAC published guidance **www.immunize.org • www.vaccineinformation.org**

ATTACHMENT 2: *Standing Orders for Administering Pneumococcal Conjugate Vaccine (PCV) to Children*

Purpose: To reduce morbidity and mortality from pneumococcal disease by vaccinating all children and teens who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate children and teens who meet any of the criteria below.

Procedure:

1. **Identify Population:** Identify infants and children in need of vaccination against invasive pneumococcal disease based on the following criteria:
   a. age 2 through 59 months and generally healthy
   b. age 2 through 71 months **with any** of the conditions described below:
      i. chronic heart disease (particularly cyanotic congenital heart disease and cardiac failure)
      ii. chronic lung disease (including asthma if treated with prolonged high-dose oral corticosteroids)
      iii. diabetes mellitus
      iv. cerebrospinal fluid leak
      v. candidate for or recipient of cochlear implant
      vi. functional or anatomic asplenia (e.g., sickle cell disease or other hemiglobinopathy. Congenital or acquired asplenia, splenic dysfunction)
      vii. immunocompromizing condition, including HIV infection; chronic renal failure and nephrotic syndrome; disease associated with treatment with immunosuppressive drugs or radiation therapy (e.g., malignant neoplasms, leukemias, lymphomas, and Hodgkin's disease; or solid organ transplantation); congenital immunodeficiency (includes B-[humoral] or T-lymphocyte deficiency; complement deficiencies, particularly c1, c2, c3, and c4 deficiency; and phagocytic disorders [excluding chronic granulomatous disease])
   c. age 6 through 18 years with any of the conditions described in categories iv through vii above.

2. **Screen Population:** Screen all patients for contraindications and precautions to PPSV:
   a. **Contraindications:** a history of a serious reaction (e.g., anaphylaxis) after a previous dose of PCV, to a PCV component, or to any diphtheria toxoid-containing vaccine. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
   b. **Precautions:** moderate or severe acute illness with or without fever; a child who has received pneumococcal polysaccharide vaccine (PPSV23) previously should wait at least 8 weeks before receiving PCV13.

3. **Administer Vaccine:**
   Provide vaccination with PCV13 for all healthy children ages 2 through 59 months, and for children with a medical condition, according to scheduled dose guidance in **Recommendations for Pneumococcal Vaccine Use in Children and Teens** table below.
   *If PCV13 and PPSV23 are inadvertently administered at the same visit, do not repeat either vaccine dose.

   (**Note: When doses of PCV13 and PPSV23 are given without the recommended minimum interval, the second dose does not need to be repeated. This is an exception to the usual procedure for a minimum interval violation [as described in ACIP's General Recommendations on Immunization] The recommended interval between the dose of PCV13 and PPSV23 is 6 to 12 months, and the recommended minimum interval between doses is 8 weeks.)*

   Administer 0.5 mL PCV13 intramuscularly in the anterolateral thigh muscle for infants and toddlers (deltoid may be used for toddlers with adequate muscle mass) or in the deltoid muscle of the arm for children ages 3 yrs and older (anterolateral thigh muscle may be used if deltoid is inadequate). Use a 22–25 g needle. Choose needle length appropriate to the child's age and body mass: infants younger than age 12 mos: 1"; toddlers 1–2 yrs: 1–1 ¼" (anterolateral thigh) or 5/8–1" (deltoid muscle); children ages 3–4 yrs: 5/8"–1" (deltoid) or 1–1 ¼" (anterolateral thigh). A 5/8" needle may be used in toddlers and children if inserted in the deltoid muscle at 90° angle to the skin, which is stretched flat between thumb and forefinger.

ATTACHMENT 2: *Standing Orders for Administering Pneumococcal Polysaccharide 23-valent Vaccine (PPSV23) to Children & Teens*

Purpose: To reduce morbidity and mortality from pneumococcal disease by vaccinating all children and teens who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate children and teens who meet any of the criteria below.

Procedure:

1. **Identify Population:**
   a. Identify children and teens ages 2 years and older in need of a first dose of pneumococcal polysaccharide vaccine (PPSV23) based on having **any** of the following conditions:
      i. chronic cardiovascular disease (e.g., cyanotic heart disease, cardiac failure, cardiomyopathies)
      ii. chronic pulmonary disease (e.g., emphysema or chronic obstructive pulmonary disease [not asthma])
      iii. diabetes, alcoholism, chronic liver disease (cirrhosis), or cerebrospinal fluid leaks
      iv. functional or anatomic asplenia (e.g., sickle cell disease, splenectomy)
      v. immunocompromizing condition (e.g., HIV infection, congenital immunodeficiency, hematologic and solid tumors)
      vi. immunosuppressive therapy (e.g., alkylating agents, antimetabolites, long-term systemic corticosteroids) or radiation therapy
      vii. organ or bone marrow transplantation
      viii. chronic renal failure or nephrotic syndrome
      ix. candidate for or recipient of cochlear implant

   b. Identify children and teens who were vaccinated at least 5 years earlier with PPSV23 and who are at highest risk for serious pneumococcal infection or are likely to have a rapid decline in pneumococcal antibody levels (i.e., asplenia, immunocompromised, immunosuppressed, undergone transplant, chronic renal failure, or nephrotic syndrome) and are in need of a second dose of PPSV23.

2. **Screen Population:** Screen all patients for contraindications and precautions to PPSV23:
   a. **Contraindications:** a history of a severe allergic reaction (e.g., anaphylaxis) after a previous dose of PPSV23 or to a PPSV23 vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
   b. **Precautions:** moderate or severe acute illness with or without fever; a child who has received pneumococcal conjugate vaccine (PCV) previously should wait at least 2 months before receiving PPSV23.

3. **Administer Vaccine:** Provide vaccination with PPSV23 to immunocompetent children and teens with risk conditions, and children and teens with immune-compromising condition, and functional or anatomic asplenia (see **Recommendations for Pneumococcal Vaccine Use in Children and Teens** table below).

   Schedule vaccination as follows:
   c. Give 1 dose of PPSV23 at age 2 years or older and at least 8 weeks after last dose of PCV.
   d. Give 1 additional dose of PPSV23 at least 5 years following the first PPSV23
   e. *If PCV13 and PPSV23 are inadvertently administered at the same visit, do not repeat either vaccine dose.

   (**Note: When doses of PCV13 and PPSV23 are given without the recommended minimum interval, the second dose does not need to be repeated. This is an exception to the usual procedure for a minimum interval violation [as described in ACIP's General Recommendations on Immunization] The recommended interval between the dose of PCV13 and PPSV23 is 6 to 12 months, and the recommended minimum interval between doses is 8 weeks.)*

   Administer 0.5 mL PPSV23 vaccine intramuscularly in the anterolateral thigh for toddlers age 24–35 mos (deltoid may be used if adequate muscle mass) or in the deltoid muscle of the arm for children ages 3 yrs and older (anterolateral thigh muscle may be used if deltoid is inadequate). Use a 22–25 g needle. Choose needle length appropriate to the child's age and body

ATTACHMENT 2: ***Standing Orders for Administering Pneumococcal Polysaccharide 23-valent Vaccine (PPSV23) to Children & Teens, cont.***

mass: 24–35 mos: 1–1¼" (anterolateral thigh) or 5/8–1" (deltoid muscle); children 3–18 yrs: 5/8"–1" (deltoid) or 1–1¼" (anterolateral thigh). A 5/8" needle may be used in toddlers and children if inserted in the deltoid muscle at 90-degree angle to the skin, which should be stretched flat between the thumb and forefinger. PPSV may also be given subcutaneously (23–25g, 5/8" needle) in the posterolateral fat of the upper arm (in children, the anterolateral fat of the thigh may also be used).

Recommendations for Pneumococcal Vaccine Use in Children and Teens

Table 1. Recommended Schedules for Administering Pneumococcal Conjugate Vaccine (PCV)

Child's Age Now	Vaccination history of PCV7 and/or PCV13	Recommended PCV13 Schedule (For minimum interval guidance for catch-up vaccination, see [1])
2 through 6 months	0 doses	3 doses, 8 weeks[1] apart; 4th dose at age 12–15 months
	1 dose	2 doses, 8 weeks[1] apart; 4th dose at age 12–15 months
	2 doses	1 dose, at least 8 weeks[1] after the most recent dose; 4th dose at age 12–15 months
7 through 11 months	0 doses	2 doses, 8 weeks apart[1]; 3rd dose at age 12–15 months
	1 or 2 doses before age 7 months	1 dose at age 7–11 months; 2nd dose at age 12–15 months, at least 8 weeks after the most recent dose
12 through 23 months	0 doses	2 doses, at least 8 weeks apart
	1 dose before age 12 months	2 doses, at least 8 weeks apart
	1 dose at or after age 12 months	1 dose, at least 8 weeks after the most recent dose
	2 or 3 doses before age 12 months	1 dose, at least 8 weeks after the most recent dose
	4 doses of PCV7 or other age-appropriate complete PCV7 schedule	1 PCV13 dose, at least 8 weeks after the most recent PCV7 dose
24 through 59 months (healthy)	Unvaccinated or any incomplete schedule	1 dose, at least 8 weeks after the most recent dose
	4 doses of PCV7 or other age-appropriate complete PCV7 schedule	1 dose, at least 8 weeks after the most recent dose
24 through 71 months (with risk factor described in Table 3 below)	Unvaccinated or any incomplete schedule of less than 3 doses	2 doses, one at least 8 week after the most recent dose and another dose at least 8 weeks later
	Any incomplete schedule of 3 doses	1 PCV13 dose, at least 8 weeks after the most recent PCV7 dose
	4 doses of PCV7 or other age-appropriate complete PCV7 schedule	1 PCV13 dose, at least 8 weeks after the most recent PCV7 dose
6 through 18 years with immunocompromising condition, functional or anatomic asplenia (see specific conditions in Table 3 below), cerebrospinal fluid leak, or cochlear implant	No history of prior PCV13	1 dose of PCV13

[1] Minimum interval between doses: For children younger than age 12 months: 4 weeks; for children age 12 months and older: 8 weeks.

ATTACHMENT 2: *Standing Orders for Administering Pneumococcal Polysaccharide 23-valent Vaccine (PPSV23) to Children & Teens, cont.*

Table 2. Recommended Schedule for Administering Pnuemococcal Ploysaccharide Vaccine (PPSV23)		
Risk Group	**Schedule for PPSV23**	**Revaccination with PPSV23**
Immunocompetent children and teens with risk condition (see Table 3 below)	Give 1 dose of PPSV23 at age 2 years or older and at least 8 weeks after last dose of PCV	Not indicated
Children and teens with immuno-compromising condition, functional or anatomic asplenia (see specific conditions in Table 3 below)	Give 1 dose of PPSV23 at age 2 years or older and at least 8 weeks after last dose of PCV	Give 1 additional dose of PPSV23 at least 5 years following the first PPSV23; the next recommended dose would be at age 65 years.

Table 3. Underlying Medical Conditions that Are Indications for Pnuemococcal Vaccination	
Risk Group	**Condition**
Immunocompetent children and teens with risk condition	Chronic heart disease (particularly cyonatic congenital heart disease and cardiac failure); chronic lung disease (including asthma if treated with prolonged high dose oral corticosteroids); diabetes mellitus; cerebraspinal fluid leak; cochlear implant
Children and teens with functional or anatomic asplenia	• Sickle cell disease and other hemoglobinopathies • Congenital or acquired asplenia or splenic dysfunction
Children and teens with immunocompromising conditions	• HIV infection • Chronic renal failure and nephrotic syndrome • Diseases associated with treatment with immunosuppressive drugs or radiation therapy (e.g., malignant neoplasms, leukemias, lymphomas, and Hodgkin disease; or solid organ transplantion) • Congenital immunodeficiency (includes B-[humoral] or T-lymphocyte deficiency; complement deficiencies, particularly C1, C2, C3 or C4 deficiency; and phagocytic disorders [exlucing chronic granulomatous disease])

*Unless otherwise noted with an *, information in this document mirrors current IAC published guidance* www.immunize.org • www.vaccineinformation.org.

ATTACHMENT 2: *Standing Orders for Administering Pneumococcal (PPSV23 and PCV13) Vaccine to Adults*

Purpose: To reduce morbidity and mortality from pneumococcal disease by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate adults who meet any of the criteria below.

Procedures:

1. **Identify Population:**
   a. Identify adults in need of vaccination with pneumococcal conjugate vaccine (PCV13) based on the following criteria:
      i. Age 65 years or older with no or unknown history of prior receipt of PCV13
      ii. Age 19 through 64 years with no or unknown history of prior receipt of PCV13 and any of the following conditions:
         - candidate for or recipient of cochlear implant; cerebrospinal fluid leak
         - functional or anatomic asplenia (e.g., sickle cell disease, splenectomy)
         - immune-compromising condition (e.g., HIV infection, congenital immunodeficiency, hematologic and solid tumors)
         - immunosuppressive therapy (e.g., alkylating agents, antimetabolites, long-term systemic corticosteroids, radiation therapy)
         - organ or bone marrow transplantation; chronic renal failure or nephrotic syndrome
   b. Identify adults in need of vaccination with pneumococcal polysaccharide vaccine (PPSV23) based on the following criteria:
      i. Age 65 years or older with no or unknown history of prior receipt of PPSV23
      ii. Age 19 through 64 years with no or unknown history of prior receipt of PPSV23 and any of the following conditions:
         - chronic cardiovascular disease (e.g., congestive heart failure, cardiomyopathies)
         - chronic pulmonary disease (e.g., chronic obstructive pulmonary disease, emphysema, asthma)
         - diabetes mellitus, alcoholism or chronic liver disease (cirrhosis), cigarette smoker
         - any of the conditions specified in categories 1.b. above
   c. Identify adults in need of an additional dose of PPSV23 if 5 or more years have elapsed since the previous dose of PPSV23 and the patient meets one of the following criteria:
      i. Age 65 years or older and received prior PPSV vaccination before age 65 years
      ii. Age 19 through 64 years and at highest risk for serious pneumococcal infection or likely to have a rapid decline in pneumococcal antibody levels (i.e., categories 1.b.ii.–1.b.v. above)

2. **Screen Population:** Screen all patients for contraindications and precautions to pneumococcal vaccine:

   a. **Contraindication**: a history of a serious reaction (e.g., anaphylaxis) after a previous dose of pneumococcal vaccine (PPSV or PCV13) or to a vaccine component. For a information on vaccine components, refer to the manufacturer's package insert (www.immunize.org/package-inserts) or go to www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
   b. **Precaution**: moderate or severe acute illness with or without fever

3. **Administer Vaccine:** Administer vaccine as follows:
   a. For adults identified in 1a above, administer 0.5 mL PCV13 intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle.
   b. For adults identified in 1b and 1c above, administer 0.5 mL PPSV23 vaccine either intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle or subcutaneously (23–25g, 5/8" needle) in the posterolateral fat of the upper arm.
   c. For adults in need of both PCV13 and PPSV23, administer PCV13 first, followed by PPSV23 in 6–12 months.
   (Note: for adults with immunocompromising conditions or functional or anatomic asplenia, give PPSV23 8 weeks following PCV13.)

ATTACHMENT 2: ***Standing Orders for Administering Pneumococcal (PPSV23 and PCV13) Vaccine to Adults, cont.***

If previously vaccinated with PPSV23, give PCV13 at least 12 months following PPSV23. Do not give PCV13 and PPSV23 at the same visit.

(Note: A 5/8" needle may be used for IM injection for patients who weigh less than 130 lbs [60kg] for injection in the deltoid muscle, only if the subcutaneous tissue is not bunched and the injection is made at a 90-degree angle.)

Unless otherwise noted with an *, information in this document mirrors current IAC published guidance www.immunize.org • www.vaccineinformation.org

ATTACHMENT 2: *Standing Orders for Administering Poliovirus Vaccine (Inactivated) to Children and Teens*

Purpose: To reduce morbidity and mortality from poliomyelitis by vaccinating all children and teens who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate children and teens who meet any of the criteria below.

Procedure:

1. **Identify Population:** infants, children, and teens ages 2 months through 17 years who have not completed a poliomyelitis vaccination series.

2. **Screen Population:** Screen all patients for contraindications and precautions to inactivated poliovirus vaccine (IPV):
   a. **Contraindications:** a history of a serious reaction (e.g., anaphylaxis) after a previous dose of IPV or to an IPV For information on vaccine components refer to the manufacturer's package insert at http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf
   b. **Precautions:**
      i. Moderate or severe acute illness with or without fever
      ii. Pregnancy

3. **Administer Vaccine:** IPV at ages 2 months, 4 months, 6–18 months, and 4–6 years.
   Administer 0.5 mL IPV intramuscularly in the vastus lateralis for infants (and toddlers lacking adequate deltoid mass) and in the deltoid muscle (for toddlers and older children). Use a 22–25 g needle. Choose needle length appropriate to the child's age and body mass: infants younger than 12 mos: 1"; 1 through 2 yrs: 1–1 ¼"; 3 yrs and older: 1–1½". (Note: A 5/8" needle may be used for patients weighing less than 130 lbs [60kg] for injection in the deltoid muscle *only* if the subcutaneous tissue is not bunched and the injection is made at a 90-degree angle.) IPV may also be given subcutaneously (23–25g, 5/8" needle) in the anterolateral fat of the thigh for infants younger than 12 mos and in the posterolateral fat of the upper arm (for older children and teens).

   For children and teens who have not received IPV at the ages specified, give one dose at the earliest opportunity and then schedule subsequent doses by observing minimum intervals of
   a. 4 weeks between doses 1–2
   b. 4 weeks between doses 2–3 (if child is younger than age 4 years)
   c. Give a final dose at age 4 years or older, separated by a minimum interval of 6 months from the previous dose. If the child or teen has received a third dose at age 4 years or older, a fourth dose is not necessary.

Unless otherwise noted with an *, information in this document mirrors current IAC published guidance **www.immunize.org • www.vaccineinformation.org**

ATTACHMENT 2: *Standing Orders for Administering Rabies Pre-exposure Prophylaxis*

Purpose: To reduce morbidity and mortality from Rabies disease by vaccinating all TX DSHS adult staff who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate individuals currently employed by TX DSHS Health Service Regions who are at frequent risk of exposure to rabies related to assigned job duties, as determined by the regional veterinarian or Zoonosis Control Branch licensed veterinarian, in consultation with the communicable disease manager and medical director.

Procedures:

1. **Identify Population:** Identify employees in need of Rabies pre-exposure prophylaxis as outlined.
   Rabies preexposure vaccination services will not be provided to other regional employees, employees of other organizations (such as animal shelters, county animal control agencies), or members of the general public.
   These standing delegation orders do not cover the administration of vaccine related to a rabies exposure (i.e., postexposure prophylaxis).
   a. Persons exposed to rabies must be referred immediately to a healthcare provider to evaluate for possible postexposure prophylaxis, and to receive postexposure rabies vaccination if appropriate.
   b. Consult with the regional veterinarian or a member of the regional zoonosis control team for guidance related to rabies postexposure procedures.

2. **Screen Population:** Screen all patients for contraindications and precautions to rabies vaccine:
   a. **Contraindications:**
      i. History of a serious allergic reaction (e.g., anaphylaxis) after a previous dose of rabies vaccine or to a rabies vaccine. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf
   b. Precautions:
      i. Moderate or severe acute illness with or without fever

3. **Administer Vaccine:** Provide routine vaccination with three 1.0-mL injections of Imovax® or RabAvert® administered IM (1–1½" needle) in the deltoid muscle.
   (Note: a 5/8" needle may be used for patients weighing less than 130 lbs [<60kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90-degree angle.).

   Vaccine series is one injection per day on days 0, 7, and either 21 or 28. These two licensed rabies (Imovax® or RabAvert®) may be used interchangeably.
   (Note: avoid the use of the gluteal muscle as administration in this area may result in lower neutralizing antibody titers. Do not give rabies vaccine by subcutaneous, intradermal or intravascular routes.).

4. **Rabies series antibody titer evaluation**: Obtain blood specimen for serologic testing for rabies antibodies by the DSHS Laboratory at least every 2 years for employees that have completed the primary rabies vaccine series, according to DSHS Zoonosis Control Branch guideance and appropriate serum specimen collection and shipment protocols.

5. **Booster Rabies Immunization**: If the rabies antibody titer result is less than complete neutralization at a 1:5 serum dilution by rapid fluorescent focus inhibition test (RFFIT), administer a booster dose of vaccine as follows- Imovax® or RabAvert® rabies vaccine 1.0 mL injected IM (1–1½" needle) in the deltoid muscle.)

ATTACHMENT 2: *Standing Orders for Administering Rotavirus Vaccine to Infants*

Purpose: To reduce morbidity and mortality from rotavirus disease by vaccinating all infants who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate infants who meet the criteria below.

Procedures:

1. **Identify Population:** Identify infants ages 6 weeks through 7 months (not for 8 months or older) who have not completed a rotavirus (RV) vaccination series.

2. **Screen Population:** Screen all patients for contraindications and precautions to rotavirus vaccine:
   a. **Contraindications:**
      i. History of a serious allergic reaction (e.g., anaphylaxis) after a previous dose of RV vaccine or to an RV vaccine component. *(Note: latex rubber is contained in the Rotarix oral applicator).* For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf
      ii. Diagnosis of severe combined immunodeficiency (SCID)
      iii. History of intussusception
   b. **Precautions:**
      i. Altered immunocompetence
      ii. Chronic gastrointestinal disease
      iii. Spina bifida or bladder exstrophy
      iv. Moderate or severe acute illness with or without fever

3. **Administer Vaccine:** Provide routine vaccination with Rotarix at ages 2 and 4 months OR provide routine vaccination with RotaTeq at ages 2, 4, and 6 months. Administer the full dose (1 mL for Rotarix; 2 mL for RotaTeq) of vaccine by administering the entire contents of the dosing applicator of the liquid vaccine into the infant's mouth toward the inner cheek until empty.
   (Note that Rotarix needs to be reconstituted before administration; RotaTeq does not.)

   For infants who have not received RV vaccine by age 2 months, give the first dose at the earliest opportunity but no later than age 14 weeks 6 days. Then schedule subsequent doses by observing minimum intervals of:
      a. 4 weeks between this and the remaining dose (if Rotarix) or
      b. 2 dose(s) (if RotaTeq) such that the final dose can be administered by age 8 months 0 days
      c. Do not administer any RV vaccine beyond the age of 8 months 0 days.

ATTACHMENT 2*: Standing Orders for Tetanus, Diphtheria toxoids and Pertussis Vaccine (Tdap/Td)to Children Age 7 Years and Older*

Purpose: To reduce morbidity and mortality from tetanus, diphtheria, and pertussis by vaccinating all children and teens who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate children and teens who meet the criteria below.

Procedures:

1. **Identify Population:** Identify children and teens age 7 years and older in need of vaccination against diphtheria, tetanus, and pertussis based on the following criteria:
   a. lack of documentation of at least 4 doses of diphtheria, tetanus, and pertussis vaccine, with at least one of the doses given after age 4 years and with the most recent dose given a minimum of 4 calendar months after the preceding dose,
   b. lack of documentation of at least 3 doses of diphtheria and tetanus vaccine (i.e., DT, Td),
   c. lack of history of pertussis-containing vaccine given at age 10 years or older,
   d. currently pregnant and no documentation of Tdap given during the current pregnancy, or
   e. completion of a 3-dose primary series of diphtheria and tetanus toxoid-containing vaccine with receipt of the last dose being 10 years ago or longer.

2. **Screen Population:** Screen all patients for contraindications and precautions to Td or Tdap:
   a. **Contraindications**:
      i. a history of a severe allergic reaction (e.g., anaphylaxis) after a previous dose of Td or to a Td or Tdap component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf
      ii. for Tdap only, a history of encephalopathy within 7 days following DTP/DTaP/Tdap not attributable to another identifiable cause
      iii. Uncontrolled progressive neurologic disorders (including infantile spasms, uncontrolled epilepsy, progressive encephalopathy). *
   b. **Precautions:**
      i. history of Guillain-Barré syndrome within 6 weeks of previous dose of tetanus toxoid-containing vaccine
      ii. history of an arthus-type hypersensitivity reaction following a previous dose of tetanus or diphtheria toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus toxoid-containing vaccine
      iii. moderate or severe acute illness with or without fever

3. **Administer Vaccine:** Administer 0.5 mL Td (or a one-time dose of Tdap, if indicated) intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle; the anterolateral thigh muscle may be used if deltoid is inadequate.
   (Note: a 5/8" needle may be used for patients weighing less than 130 lbs [60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90 degree angle.)

   Schedule vaccination as follows:
   a. For children and teens age 7 years and older who meet the criteria described in 1 above, administer one dose at the earliest opportunity and then complete the remaining doses (as needed) by observing minimum intervals of 4 weeks between the first and second doses, and 6 calendar months between the second and third doses. A dose of Tdap should be substituted for one of the doses of Td, preferably the first.
   b. For children and teens age 11 through 18 years without a history of pertussis-containing vaccine given at age 7 years or older, administer Tdap routinely at age 11 through 12 years or as catch-up at 13 through 18 years; no minimum interval since previous Td needs to be observed.
   c. For pregnant adolescents, administer Tdap during each pregnancy (preferably during 27 through 36 weeks' gestation), regardless of number of years since prior Td or Tdap vaccination.
   d. Administer further boosters as Td every 10 years.

ATTACHMENT 2*: Administering Tetanus, Diphtheria toxoids and Pertussis Vaccine (Tdap/Td) to Adults*

Purpose: To reduce morbidity and mortality from tetanus, diphtheria, and pertussis by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate adults who meet the criteria below.

Procedures:

1. **Identify Population:** Identify adults in need of vaccination against tetanus, diphtheria, and pertussis based on the following criteria:
   a. lack of documentation of receiving a dose of pertussis-containing vaccine (i.e., Tdap) as an adolescent or adult
   b. currently pregnant and no documentation of Tdap given during current pregnancy
   c. lack of documentation of receiving at least 3 doses of tetanus- and diphtheria-containing toxoids
   d. completion of a 3-dose primary series of tetanus- and diphtheria-containing toxoids with no documentation of receiving a booster dose within the previous 10 years
   e. recent deep and dirty wound (e.g., contaminated with dirt, feces, saliva) and lack of evidence of having received tetanus toxoid-containing vaccine in the previous 5 years

2. **Screen Population:** Screen all patients for contraindications and precautions to tetanus and diphtheria toxoids (Td) and, if applicable, pertussis vaccine (Tdap):
   a. **Contraindications:**
      i. a history of a severe allergic reaction (e.g., anaphylaxis) after a previous dose of Td or to a Td or Tdap component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf
      ii. for Tdap only, a history of encephalopathy within 7 days following DTP/DTaP/Tdap not attributable to another identifiable cause
      iii. Uncontrolled progressive neurologic disorders (including infantile spasms, uncontrolled epilepsy, progressive encephalopathy). *
   b. **Precautions:**
      i. history of Guillain-Barré syndrome within 6 weeks of previous dose of tetanus toxoid-containing vaccine
      ii. history of an arthus-type hypersensitivity reaction after a previous dose of tetanus or diphtheria toxoid-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus toxoid-containing vaccine
      iii. moderate or severe acute illness with or without fever

3. **Administer Vaccine:** Administer 0.5 mL Td or Tdap vaccine intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle or, alternatively, the anterolateral thigh also can be used.
   (Note: a 5/8" needle may be used for adults weighing less than 130 lbs [60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90 degree angle.)

   Provide subsequent doses of either Tdap or Td to adults as follows:
   a. To complete the primary 3-dose schedule: observe a minimum interval of
      i. 4 weeks between the first and second doses, and
      ii. 6 calendar months between the second and third doses.
   b. To boost with Tdap or Td after primary schedule is complete; prioritize use of Tdap if not previously given; if Tdap was already administered, boost with Td routinely every 10 years.
      (Note: there is no need to observe a minimum interval between Td and the subsequent Tdap)
   c. When feasible, administer Boostrix Tdap vaccine to adults age 65 years and older; however, either Tdap vaccine product administered to a person age 65 years and older provides protection against pertussis and is considered valid.
   d. For pregnant women, administer Tdap during each pregnancy (preferably during 27 through 36 weeks' gestation), regardless of number of years since prior Td or Tdap vaccination.

ATTACHMENT 2: *Administering Tetanus, Diphtheria toxoids and Pertussis Vaccine (Tdap) to Pregnant Women*

Purpose: To reduce morbidity and mortality from tetanus, diphtheria, and pertussis by vaccinating all pregnant women who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate people who meet the criteria below.

Procedures:

1. **Identify Population:** Identify pregnant women, including teens, who, during their current pregnancy, lack vaccination with tetanus and diphtheria toxoids with pertussis vaccine (Tdap), regardless of number of years since prior Td or Tdap vaccination.

2. **Screen Population:** Screen all pregnant women for contraindications and precautions to Tdap, as follows:
   a. **Contraindications:**
      v. a history of a severe allergic reaction (e.g., anaphylaxis) after a previous dose of Td or Tdap or to a vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf
      i. a history of encephalopathy within 7 days following DTP, DTaP, or Tdap not attributable to another identifiable cause
      ii. Uncontrolled progressive neurologic disorders (including infantile spasms, uncontrolled epilepsy, progressive encephalopathy). *
   b. **Precautions:**
      i. history of Guillain-Barré syndrome within 6 weeks of previous dose of tetanus toxoid-containing vaccine
      ii. history of an arthus-type reaction following a previous dose of tetanus-containing or diphtheria-containing vaccine; defer vaccination until at least 10 years have elapsed since the last tetanus-containing vaccine
      iii. moderate or severe acute illness with or without fever

3. **Administer Vaccine:** Administer 0.5 mL Tdap vaccine intramuscularly (22–25g, 1–1½" needle) in the deltoid muscle or, alternatively, the anterolateral thigh can be used.
   (Note: a 5/8" needle may be used for people weighing less than 130 lbs [60 kg] for injection in the deltoid muscle only if the subcutaneous tissue is not bunched and the injection is made at a 90-degree angle.)

   In pregnancy, the optimal time to administer Tdap is during 27 through 36 weeks' gestation, although vaccination may occur at any time during pregnancy. If woman has no history of Tdap and vaccine is not administered during pregnancy, vaccinate immediately post-partum.

ATTACHMENT 2: Standing Orders for Administering Varicella (Chickenpox) Vaccine to Children & Teens

Purpose: To reduce morbidity and mortality from varicella (chickenpox) by vaccinating all children and teens who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate children and teens who meet any of the criteria below.

Procedure

2. **Identify Population:** Identify children and teens age 12 months and older in need of vaccination against varicella. (Note: Because HIV-infected children are at increased risk for morbidity from varicella and herpes zoster (shingles), single-antigen varicella vaccine should be considered for HIV-infected children with CD4+ T-lymphocyte percentages greater than or equal to 15% as well as for children age 9 years and older with CD4+ T-lymphocytes count greater than or equal to 200 cells per microliter.)

3. **Screen Population:** Screen all patients for contraindications and precautions to varicella vaccine:
   - **a. Contraindications:**
     - i. a history of a serious reaction (e.g., anaphylaxis) after a previous dose of varicella vaccine or to a varicella vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf
     - ii. pregnant now or may become pregnant within 1 month (pregnant women should be vaccinated when no longer pregnant)
     - iii. having any malignant condition, including blood dyscrasias, leukemia, lymphomas of any type, or other malignant neoplasms affecting the bone marrow or lymphatic systems
     - iv. receiving high-dose systemic immunosuppressive therapy (e.g., two weeks or more of daily receipt of 20 mg or more [or 2 mg/kg body weight or more] of prednisone or equivalent)
     - v. family history of congenital or hereditary immunodeficiency in first-degree relatives (e.g., parents, siblings) unless the immune competence of the potential vaccine recipient has been clinically substantiated or verified by a laboratory
     - vi. a child age 1 year or older with CD4+ T-lymphocyte percentages less than 15% or a child or teen age 6 years or older with CD4+ T-lymphocytes count less than 200 cells per microliter
     - vii. for combination MMRV only, primary or acquired immunodeficiency, including immunosuppression associated with AIDS or other clinical manifestations of HIV infections, cellular immunodeficiencies, hypogammaglobulinemia, and dysgammaglobulinemia.
   - **b. Precautions:**
     - i. recent receipt (within the previous 11 months) of antibody-containing blood product (specific interval depends on product)
     - ii. receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination; avoid use of these antiviral drugs for 14 days after vaccination
     - iii. moderate or severe acute illness with or without fever

4. **Administer Vaccine:** Provide routine vaccination with varicella vaccine at ages 12–15 months and at 4–6 years. Administer 0.5 mL varicella vaccine subcutaneously (23–25g, 5/8" needle) in the posterolateral fat of the upper arm for children and teens. Varicella-containing vaccine must be stored frozen. Reconstitute and administer varicella-containing vaccine immediately after removing it from the freezer.

   For children and teens who have not received two doses of varicella vaccine (generally given at the ages specified above in #4), give a dose at the earliest opportunity and then schedule a second dose, if needed. Observe minimum intervals of:
   - 12 weeks between doses for children age 12 years or younger
   - 4 weeks between doses for teens 13 years and older.

ATTACHMENT 2: *Standing Orders for Administering Varicella (Chickenpox) Vaccine to Adults*

Purpose: To reduce morbidity and mortality from varicella (chickenpox) by vaccinating all adults who meet the criteria established by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

Policy: Under these standing orders, eligible nurses and other healthcare professionals (e.g., pharmacists), where allowed by state law, may vaccinate adults who meet any of the criteria below.

Procedure:

1. **Identify Population:** Identify adults in need of varicella (chickenpox) vaccination who (a) were born in the U.S. in 1980 or later or (b) are a healthcare worker or non-U.S.-born person, and who also meet any of the following criteria:
   i. lack documentation of 2 doses of varicella vaccine
   ii. lack a history of varicella based on diagnosis or verification of varicella by a healthcare provider
   iii. lack a history of herpes zoster based on healthcare provider diagnosis or verification
   iv. lack laboratory evidence of immunity or laboratory confirmation of disease

   Note: Because HIV-infected adults are at increased risk of severe disease from varicella, vaccination may be considered (2 doses,given 3 months apart) for HIV-infected adults and adolescents with CD4+ T-lymphocytes count >200 cells/µL.

2. **Screen Population:** Screen all patients for contraindications and precautions to varicella vaccine:
   a. **Contraindications:**
      i. a history of a serious reaction (e.g., anaphylaxis) after a previous dose of varicella vaccine or to a varicella vaccine component. For information on vaccine components, refer to the manufacturer's package insert (http://www.immunize.org/packageinserts/) or go to http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf
      ii. pregnant now or may become pregnant within 1 month (pregnant women should be vaccinated when no longer pregnant)
      iii. having any malignant condition, including blood dyscrasias, leukemia, lymphomas of any type, or other malignant neoplasms affecting the bone marrow or lymphatic systems
      iv. receiving high-dose systemic immunosuppressive therapy (e.g., two weeks or more of daily receipt of 20 mg or more [or 2 mg/kg body weight or more] of prednisone or equivalent)
      v. an adult or adolescent with CD4+ T-lymphocytes count <200 cells/µL
      vi. family history of congenital or hereditary immunodeficiency in first-degree relatives (e.g., parents, siblings) unless the immune competence of the potential vaccine recipient has been clinically substantiated or verified by a laboratory
   b. **Precautions:**
      i. recent (within the past 11 months) receipt of antibody-containing blood product (specific interval depends on product)
      ii. receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination; avoid use of these antiviral drugs for 14 days after vaccination
      iii. moderate or severe acute illness with or without fever

3. **Administer Vaccine:** Administer 0.5 mL varicella vaccine subcutaneously (23–25g, e" needle) in the posterolateral fat of the upper arm. If indicated, administer the second dose 4–8 weeks after the first dose. Varicella vaccine must be stored frozen. Reconstitute and administer varicella vaccine immediately after removing it from the freezer.

ATTACHMENT 3: ***Immunization Screening Checklist***

Patient name: _____ Date of birth: ____/____/____ (mo.) (day) (yr.)

Screening Checklist for Contraindications to Vaccines for Children and Teens

For parents/guardians: The following questions will help us determine which vaccines your child may be given today. If you answer "yes" to any question, it does not necessarily mean your child should not be vaccinated. It just means additional questions must be asked. If a question is not clear, please ask your healthcare provider to explain it.

	Yes	No	Don't Know
1. Is the child sick today?	☐	☐	☐
2. Does the child have allergies to medications, food, a vaccine component, or latex?	☐	☐	☐
3. Has the child had a serious reaction to a vaccine in the past?	☐	☐	☐
4. Has the child had a health problem with lung, heart, kidney or metabolic disease (e.g., diabetes), asthma, or a blood disorder? Is he/she on long-term aspirin therapy?	☐	☐	☐
5. If the child to be vaccinated is 2 through 4 years of age, has a healthcare provider told you that the child had wheezing or asthma in the past 12 months?	☐	☐	☐
6. If your child is a baby, have you ever been told he or she has had intussusception?	☐	☐	☐
7. Has the child, a sibling, or a parent had a seizure; has the child had brain or other nervous system problems?	☐	☐	☐
8. Does the child have cancer, leukemia, HIV/AIDS, or any other immune system problem?	☐	☐	☐
9. In the past 3 months, has the child taken medications that weaken their immune system, such as cortisone, prednisone, other steroids, or anticancer drugs, or had radiation treatments?	☐	☐	☐
10. In the past year, has the child received a transfusion of blood or blood products, or been given immune (gamma) globulin or an antiviral drug?	☐	☐	☐
11. Is the child/teen pregnant or is there a chance she could become pregnant during the next month?	☐	☐	☐
12. Has the child received vaccinations in the past 4 weeks?	☐	☐	☐

Form completed by: _____ Date: _____

Form reviewed by: _____ Date: _____

Did you bring your child's immunization record card with you? **yes** ☐ **no** ☐

It is important to have a personal record of your child's vaccinations. If you don't have one, ask the child's healthcare provider to give you one with all your child's vaccinations on it. Keep it in a safe place and bring it with you every time you seek medical care for your child. Your child will need this document to enter day care or school, for employment, or for international travel.

Technical content reviewed by the Centers for Disease Control and Prevention

IMMUNIZATION ACTION COALITION Saint Paul, Minnesota • 651-647-9009 • www.immunize.org • www.vaccineinformation.org

www.immunize.org/catg.d/p4060.pdf • Item #P4060 (1/15)

ATTACHMENT 3: ***Immunization Screening Checklist, cont.***

Information for Health Professionals about the Screening Checklist for Contraindications (Children & Teens)

Are you interested in knowing why we included a certain question on the screening checklist? If so, read the information below. If you want to find out even more, consult the references listed at the bottom of this page.

1. Is the child sick today? *[all vaccines]*
There is no evidence that acute illness reduces vaccine efficacy or increases vaccine adverse events (1, 2). However, as a precaution with moderate or severe acute illness, all vaccines should be delayed until the illness has improved. Mild illnesses (such as otitis media, upper respiratory infections, and diarrhea) are NOT contraindications to vaccination. Do not withhold vaccination if a person is taking antibiotics.

2. Does the child have allergies to medications, food, a vaccine component, or latex? *[all vaccines]*
If a person has anaphylaxis after eating gelatin, do not administer MMR, MMRV, or varicella vaccine. A local reaction following a prior vaccine dose is not a contraindication to a subsequent dose. For a table of vaccines supplied in vials or syringes that contain latex, go to www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/latex-table.pdf. For an extensive list of vaccine components, see reference 3. An egg-free recombinant influenza vaccine (RIV3) may be used in people age 18 years and older with egg allergy of any severity who have no other contraindications. Children and teens younger than age 18 years who have experienced a serious systemic or anaphylactic reaction (e.g., hives, swelling of the lips or tongue, acute respiratory distress, or collapse) after eating eggs can usually be vaccinated with inactivated influenza vaccine (IIV); consult ACIP recommendations (see reference 4).

3. Has the child had a serious reaction to a vaccine in the past?
[all vaccines] History of anaphylactic reaction (see question 2) to a previous dose of vaccine or vaccine component is a contraindication for subsequent doses (1). History of encephalopathy within 7 days following DTP/DTaP is a contraindication for further doses of pertussis-containing vaccine. Precautions to DTaP (not Tdap) include the following: (a) seizure within 3 days of a dose, (b) pale or limp episode or collapse within 48 hours of a dose, (c) continuous crying for 3 or more hours within 48 hours of a dose, and (d) fever of 105°F (40°C) within 48 hours of a previous dose. There are other adverse events that might have occurred following vaccination that constitute contraindications or precautions to future doses. Under normal circumstances, vaccines are deferred when a precaution is present. However, situations may arise when the benefit outweighs the risk (e.g., during a community pertussis outbreak).

4. Has the child had a health problem with lung, heart, kidney, or metabolic disease (e.g., diabetes), asthma, or a blood disorder? Is he/she on long-term aspirin therapy? *[LAIV]*
The safety of LAIV in children and teens with lung, heart, kidney, or metabolic disease (e.g., diabetes), or a blood disorder has not been established. These conditions, including asthma in children ages 5 years and older, should be considered precautions for the use of LAIV. Children on long-term aspirin therapy should not be given LAIV; instead, they should be given IIV.

5. If the child to be vaccinated is 2 through 4 years of age, has a healthcare provider told you that the child had wheezing or asthma in the past 12 months? *[LAIV]*
Children ages 2 through 4 years who have had a wheezing episode within the past 12 months should not be given LAIV. Instead, these children should be given IIV.

6. If your child is a baby, have you ever been told that he or she has had intussusception? *[Rotavirus]*
Infants who have a history of intussusception (i.e., the telescoping of one portion of the intestine into another) should not be given rotavirus vaccine.

7. Has the child, a sibling, or a parent had a seizure; has the child had brain or other nervous system problem? *[DTaP, Td, Tdap, IIV, LAIV, MMRV]* DTaP and Tdap are contraindicated in children who have a history of encephalopathy within 7 days following DTP/DTaP. An unstable progressive neurologic problem is a precaution to the use of DTaP and Tdap. For children with stable neurologic disorders (including seizures) unrelated to vaccination, or for children with a family history of seizures, vaccinate as usual (*exception:* children with a personal or family [i.e., parent or sibling] history of seizures generally should not be vaccinated with MMRV; they should receive separate MMR and VAR vaccines). A history of Guillain-Barré syndrome (GBS) is a consideration with the following: 1) Td/Tdap: if GBS has occurred within 6 weeks of a tetanus-containing vaccine and decision is made to continue vaccination, give age-appropriate Tdap instead of Td if no history of prior Tdap, to improve pertussis protection; 2) Influenza vaccine (IIV or LAIV): if GBS has occurred within 6 weeks of a prior influenza vaccination, vaccinate with IIV if at high risk for severe influenza complications.

8. Does the child have cancer, leukemia, HIV/AIDS, or any other immune system problem? *[LAIV, MMR, MMRV, RV, VAR]*
Live virus vaccines (e.g., MMR, MMRV, varicella, rotavirus, and the intranasal live, attenuated influenza vaccine [LAIV]) are usually contraindicated in immunocompromised children. However, there are exceptions. For example, MMR is recommended for asymptomatic HIV-infected children who do not have evidence of severe immunosuppression. Likewise, varicella vaccine should be considered for HIV-infected children with age-specific CD4+ T-lymphocyte percentage at 15% or greater and may be considered for children age 8 years and older with CD4+ T-lymphocyte counts of greater than or equal to 200 cells/μL. Immunosuppressed children should not receive LAIV. Infants who have been diagnosed with severe combined immunodeficiency (SCID) should not be given a live virus vaccine, including rotavirus (RV) vaccine. Other forms of immunosuppression are a precaution, not a contraindication, to rotavirus vaccine. For details, consult the ACIP recommendations (1, 5, 6).

9. In the past 3 months, has the child taken medications that weaken their immune system, such as cortisone, prednisone, other steroids, or anticancer drugs, or had radiation treatments? *[LAIV, MMR, MMRV, VAR]*
Live virus vaccines (e.g., MMR, MMRV, varicella, LAIV) should be postponed until after chemotherapy or long-term high-dose steroid therapy has ended. For details and length of time to postpone, consult the ACIP statement (1). To find specific vaccination schedules for stem cell transplant (bone marrow transplant) patients, see reference 7. LAIV can be given only to healthy non-pregnant individuals age 2 through 49 years.

10. In the past year, has the child received a transfusion of blood or blood products, or been given immune (gamma) globulin or an antiviral drug? *[LAIV, MMR, MMRV, VAR]*
Certain live virus vaccines (e.g., LAIV, MMR, MMRV, varicella) may need to be deferred, depending on several variables. Consult the most current ACIP recommendations or the current *Red Book* for the most current information on intervals between antiviral drugs, immune globulin or blood product administration and live virus vaccines (1, 2).

11. Is the child/teen pregnant or is there a chance she could become pregnant during the next month? *[LAIV, MMR, MMRV, VAR]*
Live virus vaccines (e.g., MMR, MMRV, varicella, LAIV) are contraindicated one month before and during pregnancy because of the theoretical risk of virus transmission to the fetus (1, 3). Sexually active young women who receive a live virus vaccine should be instructed to practice careful contraception for one month following receipt of the vaccine (6, 8). On theoretical grounds, inactivated poliovirus vaccine should not be given during pregnancy; however, it may be given if risk of exposure is imminent (e.g., travel to endemic areas) and immediate protection is needed. Use of Td or Tdap is not contraindicated in pregnancy. At the provider's discretion, either vaccine may be administered during the 2nd or 3rd trimester (9).

12. Has the child received vaccinations in the past 4 weeks?
[LAIV, MMR, MMRV, VAR, yellow fever]
Children who were given either LAIV or an injectable live virus vaccine (e.g., MMR, MMRV, varicella, yellow fever) should wait 28 days before receiving another vaccination of this type. Inactivated vaccines may be given at the same time or at any spacing interval.

References:
1. CDC. General recommendations on immunization, at www.cdc.gov/vaccines/pubs/acip-list.htm.
2. AAP. *Red Book: Report of the Committee on Infectious Diseases* at www.aapredbook.org.
3. Table of Vaccine Components: www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
4. CDC. Prevention and control of seasonal influenza with vaccines: Recommendations of the ACIP—2014–2015 Influenza Season at www.cdc.gov/mmwr/pdf/wk/mm6332.pdf, pages 691–7.
5. CDC. Measles, mumps, and rubella—vaccine use and strategies for elimination of measles, rubella, and congenital rubella syndrome and control of mumps. *MMWR* 1998; 47 (RR-8).
6. CDC. Prevention of varicella: Recommendations of the Advisory Committee on Immunization Practices. *MMWR* 2007; 56 (RR-4).
7. Tomblyn M, Einsele H, et al. Guidelines for preventing infectious complications among hematopoietic stem cell transplant recipients: a global perspective. *Biol Blood Marrow Transplant* 15:1143–1238; 2009 at www.cdc.gov/vaccines/pubs/hemato-cell-transplts.htm.
8. CDC. Notice to readers: Revised ACIP recommendation for avoiding pregnancy after receiving a rubella-containing vaccine. *MMWR* 2001; 50 (49).
9. CDC. Prevention of pertussis, tetanus, and diphtheria among pregnant and postpartum women and their infants: Recommendations of the ACIP. *MMWR* 2008; 57 (RR-4).

ATTACHMENT 4: *Summary of Recommendations for Child/Teen Immunization*

Summary of Recommendations for Child/Teen Immunization (Age birth through 18 years)

Vaccine Name and Route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccination and related issues	Contraindications and Precautions (mild illness is not a contraindication)
Hepatitis B (HepB) *Give IM*	• Vaccinate all children age 0 through 18yrs. • Vaccinate all newborns with monovalent vaccine prior to hospital discharge. Give dose #2 at age 1–2m and the final dose at age 6–18m (the last dose in the infant series should not be given earlier than age 24wks). After the birth dose, the series may be completed using 2 doses of single-antigen vaccine (ages 1–2m, 6–18m) or up to 3 doses of Comvax (ages 2m, 4m, 12–15m) or with 3 doses of Pediarix (ages 2m, 4m, 6m), which may result in giving a total of 4 doses of hepatitis B vaccine. • **If mother is HBsAg-positive:** Give the newborn HBIG and dose #1 within 12hrs of birth; complete series by age 6m. • **If mother's HBsAg status is unknown:** Give the newborn dose #1 within 12hrs of birth. If low birth weight (less than 2000 grams), also give HBIG within 12hrs. For infants weighing 2000 grams or more whose mother is subsequently found to be HBsAg positive, give the infant HBIG ASAP (no later than age 7d) and follow HepB immunization schedule for infants born to HBsAg-positive mothers.	• Do not restart series, no matter how long since previous dose. • 3-dose series can be started at any age. • Minimum intervals between doses: 4wks between #1 and #2, 8wks between #2 and #3, and at least 16wks between #1 and #3. **Special Notes on Hepatitis B Vaccine (HepB)** **Dosing of HepB**: Monovalent vaccine brands are interchangeable. For people age 0 through 19yrs, give 0.5 mL of either Engerix-B or Recombivax HB **Alternative dosing schedule for unvaccinated adolescents age 11 through 15yrs:** Give 2 doses Recombivax HB 1.0 mL (adult formulation) spaced 4-6m apart. (Engerix-B is not licensed for a 2-dose schedule.) **For preterm infants:** See ACIP hepatitis B recommendations www.cdc.gov/mmwr/PDF/rr/rr5416.pdf	**Contraindication** Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. **Precautions** • Moderate or severe acute illness • For infants who weigh less than 2000 grams, see ACIP recommendations[1]
DTaP, DT (Diphtheria, tetanus, acellular pertussis) *Give IM*	• Give to children at ages 2m, 4m, 6m, 15–18m, and 4–6yrs. • May give dose #1 as early as age 6wks. • May give #4 as early as age 12m if 6m have elapsed since #3. • Do not give DTaP/DT to children age 7yrs and older. • If possible, use the same DTaP product for all doses.	• #2 and #3 may be given 4wks after previous dose. • #4 may be given 6m after #3. • If #4 is given before 4th birthday, wait at least 6m for #5 (age 4–6yrs). • If #4 is given after 4th birthday, #5 is not needed.	**Contraindications** • Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components • For all pertussis-containing vaccines: Encephalopathy not attributable to an identifiable cause, within 7d after DTP/DTaP/Tdap. • For all pertussis-containing vaccines: Progressive or unstable neurologic disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized.
Td, Tdap (Tetanus, diphtheria, acellular pertussis) *Give IM*	• For children and teens lacking previous Tdap: Give Tdap routinely at age 11–12yrs and vaccinate older teens on a catch-up basis; then boost every 10yrs with Td. • Make special efforts to give Tdap to children and teens who are: (1) in contact with infants younger than age 12m and, (2) healthcare workers with direct patient contact. • Give Tdap to pregnant adolescents during each pregnancy (preferred during 27–36 weeks' gestation), regardless of interval since prior Td or Tdap.	• Children as young as age 7yrs and teens who are unvaccinated or behind schedule should complete a primary Td series (spaced at 0, 1-2m, and 6-12m intervals); substitute Tdap for any dose in the series preferably as dose #1 • Tdap should be given regardless of interval since previous Td.	**Precautions** • Moderate or severe acute illness. • History of arthus reaction following a prior dose of tetanus or diphtheria toxoid-containing vaccine; defer vaccination until at least 10yrs have elapsed since the last tetanus toxoid-containing vaccine. • Guillain-Barré syndrome (GBS) within 6wks after previous dose of tetanus-toxoid-containing vaccine. • For DTaP only: Any of these events following a previous dose of DTP/DTaP: 1) temperature of 105°F (40.5°C) or higher within 48hrs; 2) continuous crying for 3hrs or more within 48hrs; 3) collapse or shock-like state within 48hrs; 4) seizure within 3d.

[1] This document was adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP). To obtain copies of these recommendations, visit CDC's website at www.cdc.gov/vaccines/hcp/ACIP-recs/index.html or visit the Immunization Action Coalition (IAC) website at www.immunize.org/acip. This table is revised periodically. Visit IAC's website at www.immunize.org/childrules to make sure you have the most current version.

ATTACHMENT 4: *Summary of Recommendations for Child/Teen Immunization, cont.*

Summary of Recommendations for Child/Teen Immunization (Age birth through 18 years)

Vaccine Name and Route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccination and related issues	Contraindications and Precautions (mild illness is not a contraindication)
Rotavirus (RV) *Give orally*	• Rotarix (RV1): give at ages 2m, 4m. • RotaTeq (RV5): give at ages 2m, 4m, 6m. • May give dose #1 as early as age 6wks. • Give final dose no later than age 8m-0d.	• Do not begin series in infants older than age 14wks 6 days. • Intervals between doses may be as short as 4wks. • If prior vaccination included use of different or unknown brand(s), a total of 3 doses should be given.	**Contraindications** • Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. If allergy to latex, use RV5 • History of intussusception. • Diagnosis of severe combined immunodeficiency (SCID) **Precautions** • Moderate or severe acute illness • Altered immunocompetence other than SCID. • Chronic gastrointestinal disease • For RV1 only, spina bifida or bladder exstrophy.
Varicella (Var) (Chickenpox) *Give SC*	• Give dose #1 at age 12–15m. • Give dose #2 at age 4–6yrs. Dose #2 of Var or MMRV may be given earlier if at least 3m since dose #1. If the 2nd dose was given at least 4wks after 1st dose, it can be accepted as valid. • Give a 2nd dose to all older children/ teens with history of only 1 dose. • MMRV may be used in children age 12m through 12yrs (see note below). **Note: For the first dose of MMR and varicella given at age 12-47m either MMR and Var or MMRV may be used. Unless the parent or caregiver expresses a preference for MMRV, CDC recommends that MMR and Var be used for the first dose in this age group.**	• If younger than age 13yrs, space dose #1 and #2 at least 3m apart. If age 13yrs or older, space at least 4wks apart. • May use as post exposure prophylaxis if given within 5d. • If Var and either MMR, LAIV, and/or yellow fever vaccine are not given on the same day, space them at least 28d apart.	**Contraindications** • Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. • Pregnancy or possibility of pregnancy within 4wks • Children on a high-dose immunosuppressive therapy or who are immunocompromised because of malignancy and primary or acquired immunodeficiency, including HIV/AIDS (although vaccination may be considered if CD4+ T-lymphocyte percentages are 15% or greater in children age 1 through 8yrs or 200 cells/µL in children age 9yrs and older) **Precautions** • Moderate or severe acute illness • If blood, plasma, and/or immune globulin (IG or VZIG) were given in past 11m, see ACIP's *General Recommendations on Immunization* [1] regarding time to wait before vaccinating • Receipt of specific antivirals (i.e., acyclovir, famciclovir or valacyclovir) 24hrs before vaccination if possible delay resumption of these antiviral drugs for 14d after vaccination • For MMRV only, personal or family (i.e., sibling or parent) history of seizures. Note: For patients with humoral immunodeficiency or leukemia, see ACIP recommendations at www.cdc.gov/mmwr/pdf/rr/rr5604.pdf.[1]
MMR (Measles, mumps, rubella) *Give SC*	• Give dose #1 at age 12–15m. • Give MMR at age 6–11m if traveling internationally; revaccinate with 2 doses of MMR at age 12–15m and at least 4wks later. The dose given at younger than 12m does not count toward the 2-dose series. • Give dose #2 at age 4–6yrs. Dose #2 may be given earlier if at least 4wks since dose #1. For MMRV: dose #2 may be given earlier if at least 3m since dose #1. • Give a 2nd dose to all older children and teens with history of only 1 dose. • MMRV may be used in children age 12m through 12 years (see note above).	• If MMR and either Var, LAIV, and/or yellow fever vaccine are not given on the same day, space them at least 28d apart. • When using MMR for both doses, minimum interval is 4wks. • When using MMRV for both doses, minimum interval is 3m. • May use as post exposure prophylaxis if given within 3d.	**Contraindications** • Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. • Pregnancy or possibility of pregnancy within 4wks. • Severe immunodeficiency (e.g. hematologic and solid tumors; receiving chemotherapy congenital immunodeficiency; long-term immunosuppressive therapy, or severely symptomatic HIV). Note: HIV infection is NOT a contraindication to MMR for children who are not severely immunocompromised (consult ACIP MMR recommendations [MMWR 2013;62[RR-4] for details)[1] Vaccination is recommended if indicated for 1) children age 12m through 5yrs whose CD4+ T-lymphocyte percentage has been greater than 15% for at least 6m or 2) for children age 6yrs and older whose CD4+ T-lymphocyte counts have been 200 cells/µL or greater for at lease 6m **Precautions** • Moderate or severe acute illness • If blood, plasma or immune globulin given in past 11m see ACIP's*General Recommendations on Immunization* [1] regarding time to wait before vaccinating • History of thrombocytopenia or thrombocytopenic purpura. • For MMRV only, personal or family (i.e., sibling or parent) history of seizures. • Need for tuberculin skin (TST). If TST needed, give TST before or on same day as MMR, or give TST 4wks following MMR.

ATTACHMENT 4: *Summary of Recommendations for Child/Teen Immunization, cont.*

Summary of Recommendations for Child/Teen Immunization (Age birth through 18 years)

Vaccine Name and Route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccination and related issues	Contraindications and Precautions (mild illness is not a contraindication)
Pneumococcal Conjugate (PCV13) *Give IM*	• Give at ages 2m, 4m, 6m, 12–15m (booster dose). • Dose #1 may be given as early as age 6wks. • When children are behind on PCV13 schedule, minimum interval for doses given to children younger than age 12m is 4wks; for doses given at 12m and older, it is 8wks. • For age 24 through 59m and healthy: If unvaccinated or any incomplete schedule or if 4 doses of PCV7 or any other age-appropriate complete PCV7 schedule, give 1 supplemental dose of PCV13 at least 8wks after the most recent dose. • For high-risk[2] children ages 2 through 5yrs: Give 2 doses at least 8wks apart if they previously received fewer than 3 doses; give 1 dose at least 8wks after the most recent dose if they previously received 3 doses. • For high-risk[2] children: All recommended PCV13 doses should be given prior to PPSV vaccination. • PCV13 is not routinely given to healthy children age 5yrs and older. [2] **High-risk: For *both* PCV13 *and* PPSV, those with sickle cell disease; anatomic or functional asplenia; chronic cardiac, pulmonary, or renal disease; diabetes; cerebrospinal fluid leaks; HIV infection; immunosuppression; diseases associated with immunosuppressive and/or radiation therapy; solid organ transplantation; or who have or will have a cochlear implant and *for* PPSV *only*, alcoholism and/or chronic liver disease**	• For minimum intervals, see 3rd bullet at left. • For age 7 through 11m: If history of 0 doses, give 2 doses of PCV13, 4wks apart, with a 3rd dose at age 12 –15m; if history of 1 or 2 doses, give 1 dose of PCV13 with a 2nd dose at age 12–15m at least 8wks later. • For age 12 through 23m: If unvaccinated or history of 1 dose before age 12m, give 2 doses of PCV13 8wks apart; if history of 1 dose at or after age 12m or 2 or 3 doses before age 12m, give 1 dose of PCV13 at least 8wks after most recent dose if history of 4 doses of PCV7 or other age-appropriate complete PCV7 schedule give 1 supplemental dose of PCV13 at least 8wks after the most recent dose • For age 2 through 5yrs and at high-risk[2]. If unvaccinated or any incomplete schedule of 1 or 2 doses, give 2 doses of PCV13, 1 at least 8wks after the most recent dose and another dose at least 8wks later, if any incomplete series of 3 doses or if 4 doses of PCV7 or any other age-appropriate complete PCV7 schedule, give 1 supplemental dose of PCV13 at least 8wks after the most recent PCV7 dose. • For children ages 6 through 18yrs with functional or anatomic asplenia (including sickle cell disease), HIV infection or other immunocompromising condition, cochlear implant, or CSF leak give 1 dose of PCV13 if no previous history of PCV13	**Contraindication** Previous severe allergic reaction (e.g., anaphylaxis) to a PCV vaccine, to any of its components or to any diphtheria toxoid containing vaccine **Precaution** Moderate or severe acute illness
Pneumococcal Polysaccharide (PPSV) *Give IM or SC*	• Give 1 dose at least 8wks after final dose of PCV13 to high-risk[2] children age 2yrs and older. • For children who have sickle cell disease, functional or anatomic asplenia, HIV infection, or other immuno-compromising condition, give a 2nd dose of PPSV 5yrs after previous PPSV. (See ACIP pneumococcal recommendations at www.cdc.gov/mmwr/pdf/rr/rr5911.pdf.)		**Contraindication** Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. **Precaution** Moderate or severe acute illness.
Human papillomavirus (HPV) (HPV2, Cervarix) (HPV4, Gardasil) *Give IM*	• Give 3-dose series of either HPV2 or HPV4 to girls at age 11–12yrs on a 0, 1–2, 6m schedule. (May give as early as age 9yrs.) • Give 3-dose series of HPV4 to boys age 11–12yrs on a 0, 1–2, 6m schedule. (May give as early as age 9yrs.) • Give a 3-dose series of either HPV2 or HPV4 to all older girls/women (through age 26yrs) and 3-dose series of HPV4 to all older boys/men (through age 21yrs) who were not previously vaccinated.	Minimum intervals between doses: 4wks between #1 and #2; 12wks between #2 and #3. Overall, there must be at least 24wks between doses #1 and #3. If possible, use the same vaccine product for all doses.	**Contraindications** Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components **Precautions** • Moderate or severe acute illness • Pregnancy

ATTACHMENT 4: *Summary of Recommendations for Child/Teen Immunization, cont.*

Summary of Recommendations for Child/Teen Immunization (Age birth through 18 years)

Vaccine Name and Route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccination and related issues	Contraindications and Precautions (mild illness is not a contraindication)
Hepatitis A (HepA) *Give IM*	• Give 2 doses spaced 6–18m apart to all children at age 1yr (12–23m). • Vaccinate all previously unvaccinated children and adolescents age 2yrs and older who - Want to be protected from HAV infection and lack a specific risk factor. - Live in areas where vaccination programs target older children. - Travel anywhere except U.S., W. Europe, N. Zealand, Australia, Canada, or Japan. - Have chronic liver disease, clotting factor disorder, or are adolescent males who have sex with other males. - Use illicit drugs (injectable or non-injectable). - Anticipate close personal contact with an international adoptee from a country of high or intermediate endemicity during the first 60 days following the adoptee's arrival in the U.S.	• Minimum interval between doses is 6m. • Children who are not fully vaccinated by age 2yrs can be vaccinated at a subsequent visit. • Administer 2 doses at least 6 months apart to previously unvaccinated persons who live in areas where vaccination programs target older children, or who are at increased risk for infection. • Give 1 dose as post exposure Prophylaxis to incompletely vaccinated children and teens age 12m and older who have recently (during the past 2wks) been exposed to hepatitis A virus.	**Contraindication** Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. **Precautions** Moderate or severe acute illness
Inactivated Polio (IPV) *Give SC or IM*	• Give to children at ages 2m, 4m, 6–18m, 4–6yrs. • May give dose #1 as early as age 6wks. • Not routinely recommended for U.S. residents age 18yrs and older (except certain travelers). For information on polio vaccination for international travelers, see wwwnc.cdc.gov/travel/diseases/poliomyelitis.	• The final dose should be given on or after the 4th birthday and at least 6m from the previous dose. • If dose #3 is given after 4th birthday, dose #4 is not needed if dose #3 is given at least 6m after dose #2.	**Contraindication** Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. **Precautions** • Moderate or severe acute illness • Pregnancy
Influenza Inactivated influenza vaccine (IIV) *Give IM* Live attenuated influenza vaccine (LAIV) *Give intranasally*	• Vaccinate all children and teens age 6m and older. • LAIV is preferred for healthy children ages 2 through 8yrs if immediately available; it may be given to non-pregnant people through age 49yrs who lack a contraindication or precaution. • Give 2 doses, spaced 4wks apart, to children age 6m through 8yrs who 1) are first-time vaccines, or 2) who meet any of the additional guidance in the current year's ACIP influenza vaccine recommendations[1]. • For IIV, give 0.25 mL dose to children age 6–35m and 0.5 mL dose if age 3yrs and older. • If LAIV and either MMR, Var, and/or yellow fever vaccine are not given on the same day, space them at least 28d apart.		**Contraindications** • Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine, to any of its components, including egg protein. Note: People age 18yrs and older with egg allergy of any severity can receive the recombinant influenza vaccine (RIV) (Flublok). RIV does not contain any egg protein • For LAIV only: Age younger than 2yrs; pregnancy; immunosuppression (including that caused by medications or HIV) for children and teens ages 6m through 18yrs, current long term aspirin therapy; for children age 2 through 4yrs, wheezing or asthma within the past 12m per health-care provider statement. Receipt of specific antivirals (i.e., amantadine rimantadine, zanamivir or oseltamivir) 48hrs before vaccination. Avoid use of these antiviral drugs for 14d after vaccination. For children/teens who experience only hives with exposure to eggs, give IIV with additional safety precautions (i.e., observe patients for 30 minutes after receipt of vaccine for signs of a reaction) **Precautions** • Moderate or severe acute illness. • History of Guillain-Barré syndrome (GBS) within 6wks of a previous influenza vaccination. • For LAIV only: Chronic pulmonary (including asthma in children age 5yrs and older), cardiovascular (except hypertension), renal, hepatic, neurological/neuromuscular, hematologic or metabolic (including diabetes) disorders.

ATTACHMENT 4: *Summary of Recommendations for Child/Teen Immunization, cont.*

Summary of Recommendations for Child/Teen Immunization (Age birth through 18 years)

Vaccine Name and Route	Schedule for routine vaccination and other guidelines (any vaccine can be given with another)	Schedule for catch-up vaccination and related issues	Contraindications and Precautions (mild illness is not a contraindication)
Hib (Haemophilus influenzae type b) *Give IM*	• ActHib (PRP-T): give at age 2m, 4m, 6m, 12–15m (booster dose). • PedvaxHIB or Comvax (containing PRP-OMP): give at age 2m, 4m, 12–15m (booster dose). • Dose #1 of Hib vaccine should not be given earlier than age 6wks. • Give final dose (booster dose) no earlier than age 12m and a minimum of 8wks after the previous dose. • Hib vaccines are interchangeable; however, if different brands of Hib vaccines are administered for dose #1 and dose #2, a total of 3 doses is necessary to complete the primary series in infants. • For vaccination of children 12 months and older who are immunocompromised or asplenic: if previously received no doses or only 1 dose before age 12m, give 2 additional doses at least 8wks apart; if previously received 2 or more doses before age 12m, give 1 additional dose. • Hib is not routinely given to healthy children age 5yrs and older. • 1 dose of Hib vaccine should be administered to children age 5 years and older who have anatomic or functional asplenia (including sickle cell disease) and who have not received a primary series and booster dose or at least 1 dose of Hib vaccine after age 14m. • 1 dose of Hib vaccine should be administered to unvaccinated persons 5 through 18 years of age with HIV infection. • Hiberix is approved ONLY for the booster dose at age 12m through 4yrs.	**All Hib vaccines:** • If #1 was given at 12–14m, give booster in 8wks. • Give only 1 dose to unvaccinated children ages 15–59m. **ActHib:** • #2 and #3 may be given 4wks after previous dose. • If #1 was given at age 7–11m, only 3 doses are needed; #2 is given at least 4wks after #1, then final dose at age 12–15m (wait at least 8wks after dose #2). **PedvaxHIB and Comvax:** • #2 may be given 4wks after dose #1. *Recipients of hematopoietic stem cell transplant should receive 3 doses of Hib vaccine at least 4wks apart beginning 6-12m after transplant, regardless of Hib vaccination history*	**Contraindications** • Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. • Age younger than 6wks. **Precaution** Moderate or severe acute illness.
Meningococcal conjugate quadrivalent (MenACWY) *Give IM* Menactra (MenACWY-D) Menveo (MenACWY-CRM) *Give IM* Hib-MenCY *Give IM* **Meingococcal Polysaccharide** (MPSV2) *Give SC*	• Give a 2-dose series of quadrivalent MCV (Menactra [MenACWY-D] or Menveo [MenACWY-CRM]) with dose #1 routinely at age 11–12yrs and dose #2 at age 16yrs. • Give MenACWY to all unvaccinated teens age 13 through 18yrs. If vaccinated at age 13–15yrs, give dose #2 at age 16 through 18yrs with a minimum interval of at least 8wks between doses. • For college students, give 1 initial dose to unvaccinated first-year students age 19 through 21yrs; give dose #2 if most recent dose given > 5yrs ago or when younger than age 16yrs* • Returning studenst who were enrolled prior to Jan. 1, 2012, who are re-enrolling in a higher educational seting after a break in enrollment of at least one fall or spring semester require vaccine.* • Give Hib-MenCY (MenHibrix) or MenACWY-CRM (Menveo) to children age 2–18m with persistent complement component deficiency or anatomic/functional asplenia; give at ages 2, 4, 6, 12–15m. • For unvaccinated or partially vaccinated children age 7–23m with persistent complement component deficiency: 1) if age 7–23m and using MenACWY-CRM (Menveo), give a 2-dose series at least 3m apart with dose #2 given after age 12m or, 2) if age 9–23m and using MenACWY-D (Menactra), give a 2-dose series at least 3m apart. • Give either brand of MenACWY to unvaccinated children age 24m and older with persistent complement component deficiency or anatomic or functional asplenia; give 2 doses, 2m apart. If MenACWY-D is given, it must be separated by 4wks from the final dose of PCV 13. • Give age-appropriate series of meningococcal conjugate vaccine (brand must be licensed for age of child) to 1) children age 2m and older at risk during a community outbreak attributable to a vaccine serogroup and 2) children age 9m and older travelling to or living in countries with hyperendemic or epidemic meningococcal disease. Prior receipt of Hib-MenCY is not sufficient for children travelling to the meningitis belt or the Hajj.	• If previously vaccinated and risk of meningococcal disease persists, revaccinate with MenACWY in 3yrs (if previous dose given when younger than age 7yrs) or in 5yrs (if previous dose given at age 7yrs or older). Then, give additional booster doses every 5 years if risk continues. • When administering MenACWY to Children and teens with HIV infection give 2 initial doses, separated by 8wks • Minimum ages for MCV: 6wks (Hib-MenCY), 2m (MenACWY-CRM), 9m (MenACWY-D) See ACIP schedule footnotes for additional information on catch-up vaccination of high-risk persons and for Hib-MenCY	**Contraindication** Previous severe allergic reaction (e.g., anaphylaxis) to the vaccine or to any of its components. **Precautions** Moderate or severe acute illness.

ATTACHMENT 4: *Summary of Recommendations for Adult Immunization*

Summary of Recommendations for Adult Immunization (Age 19 years and older)

Vaccine Name and Route	People for Whom Vaccination is Recommended	Schedule for Vaccination Administration (any vaccine can be given with another)	Contraindications and Precautions (mild illness is not a contraindication)
Influenza Inactivated Influenza vaccine (IIV)[2] *Give IM or ID (intradermally)* *[2]includes recombinant influenza vaccine (RIV)* Live attenuated influenza vaccine (LAIV) *Give intranasally*	For people through age 18 years, consult "Summary of Recommendations for Child/Teen Immunization" at www.immunize.org/catg.d/p2010.pdf • Vaccination is recommended for all adults. • LAIV (Flumist) is approved only for healthy nonpregnant people age 2–49yrs. • Adults age 18 through 64yrs may be given any intramuscular IIV product (Fluzone, Fluvirin, Afluria, Flucelvax), or the intradermal IIV product (Fluzone Intradermal), or RIV (FluBlok). • Adults age 18 through 64yrs may be given intramuscular IIV (Afluria) via jet injector (Stratis) • Adults age 65yrs and older may be given standard-dose IIV, or high-dose IIV (Fluzone High-Dose), or RIV. **Note:** Healthcare personnel who care for severely immuno-compromised persons (i.e., those who require care in a protective environment) should receive IIV rather than LAIV. For information on other contraindications and precautions to LAIV, see far right column.	• Give 1 dose every year in the fall or winter. • Begin vaccination services as soon as vaccine is available and continue until the supply is depleted. • Continue to give vaccine to unvaccinated adults throughout the influenza season (including when influenza activity is present in the community) and at other times when the risk of influenza exists. • If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, HZV, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d.	**Contraindications** • Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine to any of its components, including egg protein. Adults with egg allergy of any severity may receive RIV or, adults who experience only hives with exposure to eggs may receive other IIV with additional safety precautions (i.e., observe patient for 30 minutes after receipt of vaccine for signs of a reaction) • For LAIV only: pregnancy, immunosuppression; receipt of specific antivirals (i.e., amantadine, rimantadine, zanamivir, or oseltamivir) within the previous 48hrs. Avoid use of these antiviral drugs for 14d after vaccination. **Precautions** • Moderate or severe acute illness • History of Guillain-Barré syndrome (GBS) within 6wks following previous influenza vaccination • For LAIV only: Chronic pulmonary (including asthma); cardio-vascular (except hypertension), renal, hepatic, neurologic, hematologic, or metabolic (including diabetes) disorders; Immunosuppression (including that caused by medications or HIV)
Td, Tdap (Tetanus, diphtheria, pertussis) *Give IM* Do not use tetanus toxoid (TT) in place of Tdap or Td	For people through age 18 years, consult "Summary of Recommendations for Child/Teen Immunization" at: www.immunize.org/catg.d/p2010.pdf • All people who lack written documentation of a primary series consisting of at least 3 doses of tetanus- and diphtheria-toxoid-containing vaccine. • A booster dose of Td or Tdap may be needed for wound management, so consult ACIP recommendations[1]. **For Tdap only:** • Adults who have not already received Tdap or whose Tdap history is not known. • Healthcare personnel of all ages. • Give Tdap to pregnant women during each pregnancy (preferred during 27—36 weeks' gestation), regardless of the interval since prior Td or Tdap.	• For people who are unvaccinated or behind, complete the primary Td series (spaced at 0, 1 to 2m, 6 to 12m intervals); substitute a one-time dose of Tdap for one of the doses in the series, preferably the first. • Give Td booster every 10yrs after the primary series has been completed. • Tdap should be given regardless of interval since previous Td.	**Contraindications** • Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components • For Tdap only, history of encephalopathy not attributed to an identifiable cause, within 7d following DTP/DTaP, or Tdap • For pertussis-containing vaccines only, progressive or unstable neurologic disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized.* **Precautions** • Moderate or severe acute illness • Guillain-Barré syndrome within 6wks following previous dose of tetanus-toxoid-containing vaccine • History of arthus reaction following a prior dose of tetanus- or diphtheria toxoid-containing vaccine (including MCV4); defer vaccination until at least 10yrs have elapsed since the last tetanus toxoid-containing vaccine.

[1] This document was adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP). To obtain copies of these recommendations, visit CDC's website at www.cdc.gov/vaccines/hcp/ACIP-recs/index.html or visit the Immunization Action Coalition (IAC) website at www.immunize.org/acip. This table is revised periodically. Visit IAC's website at www.immunize.org/childrules to make sure you have the most current version.

www.immunize.org • www.vaccineinformation.org

Unless otherwise noted with an *, information in this document mirrors current IAC published guidance www.immunize.org • www.vaccineinformation.org

ATTACHMENT 4: *Summary of Recommendations for Adult Immunization, cont.*

Summary of Recommendations for Adult Immunization (Age 19 years and older)

Vaccine Name and Route	People for Whom Vaccination is Recommended	Schedule for Vaccination Administration (any vaccine can be given with another)	Contraindications and Precautions (mild illness is not a contraindication)
MMR (Measles, mumps, rubella) *Give SC*	For people through age 18 years, consult "Summary of Recommendations for Child/Teen Immunization" at: www.immunize.org/ catg.d/ p2010.pdf. • People born in 1957 or later (especially those born outside the U.S.) should receive at least 1 dose of MMR if they have no laboratory evidence of immunity to each of the 3 diseases or documentation of a dose given on or after the first birthday. • People in high-risk groups, such as healthcare personnel (paid, unpaid, or volunteer), students entering college and other post–high school educational institutions, and international travelers, should receive a total of 2 doses. • People born before 1957 are usually considered immune, but evidence of immunity (serology or documented history of 2 doses of MMR) should be considered for healthcare personnel. • Women of childbearing age who do not have acceptable evidence of rubella immunity or vaccination.	• Give 1 or 2 doses (see criteria in 1st and 2nd bullets in box to left). • If dose #2 is recommended, give it no sooner than 4wks after dose #1. • If woman of childbearing-age is found to be rubella susceptible and is not pregnant, give 1 dose of MMR; if she is pregnant, the dose should be given postpartum. This includes women who have already received 1 or 2 doses of rubella-containing vaccine. • If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, HZV, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d. May use as post-exposure prophylaxis if given within 3d of exposure.	**Contraindications** • Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. • Pregnancy or possibility of pregnancy within 4wks. • Severe immunodeficiency (e.g., hematologic and solid tumors; receiving chemotherapy; congenital immuno-deficiency; long-term immunosuppressive therapy; or severely symptomatic HIV). **Note:** HIV infection is NOT a contraindication to MMR for those who are not severely immunocompromised (i.e., CD4+ T-lymphocyte counts are greater than or equal to 200 cells/µL) for 6 months[1]. **Precautions** • Moderate or severe acute illness • If blood, plasma, and/or immune globulin were given in past 11m, see ACIP's *General Recommendations on Immunization*[1] regarding time to wait before vaccinating. • History of thrombocytopenia or thrombocytopenic purpura **Note:** If TST (tuberculosis skin test) and MMR are both needed but not given on the same day, delay TST for at least 4wks after MMR.
Varicella (chickenpox) (Var) *Give SC*	For people through age 18 years, consult "Summary of Recommendations for Child/Teen Immunization" at www.immunize.org/ catg.d/ p2010.pdf. • All adults without evidence of immunity. **Note:** Evidence of immunity is defined as written documentation of 2 doses of varicella vaccine; a history of varicella disease or herpes zoster (shingles) based on healthcare-provider diagnosis; laboratory evidence of immunity or confirmation of disease; and/ or birth in the U.S. before 1980, with the exceptions that follow. - Healthcare personnel (HCP) born in the U.S. before 1980 who do not meet any of the criteria above should be tested or given the 2-dose vaccine series. If testing indicates they are not immune, give the 1st dose of varicella vaccine immediately. Give the 2nd dose 4–8wks later. - Pregnant women born in the U.S. before 1980 who do not meet any of the criteria above should either 1) be tested for susceptibility during pregnancy and if found susceptible, given the 1st dose of varicella vaccine postpartum before hospital discharge, or 2) not be tested for susceptibility and given the 1st dose of varicella vaccine postpartum before hospital discharge. Give the 2nd dose 4–8wks later.	• Give 2 doses. • Dose #2 is given 4—8wks after dose #1. • If dose #2 is delayed, do not repeat dose #1. Just give dose #2. • If 2 or more of the following live virus vaccines are to be given—LAIV, MMR, Var, HZV, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d. • May use as post exposure prophylaxis if given within 5d of exposure.	**Contraindications** • Previous severe allergic reaction (e.g., anaphylaxis) anaphylactic reaction to this vaccine or to any of its components. • Pregnancy or possibility of pregnancy within 4wks • People on long-term immunosuppressive therapy or who are immunocompromised because of malignancy and primary or acquired immunodeficiency, including HIV/ AIDS (although vaccination may be considered if CD4+ T-lymphocyte counts are greater than or equal to 200 cells/µL. See MMWR 2007;56,RR-4 **Precautions** • Moderate or severe acute illness. • If blood, plasma, and/or immune globulin (IG or VZIG) were given in the past 11m, see ACEP's *General Recommendations on Immunization*[1] regarding time to wait before vaccina´ ig • Receipt of specific antivirals (i.e., acyclovir, famciclovir, or valacyclovir) 24hrs before vaccination if possible, delay resumption of these antiviral drugs for 14d after vaccination

ATTACHMENT 4: *Summary of Recommendations for Adult Immunization, cont.*

Summary of Recommendations for Adult Immunization (Age 19 years and older)

Vaccine Name and Route	People for Whom Vaccination is Recommended	Schedule for Vaccination Administration (any vaccine can be given with another)	Contraindications and Precautions (mild illness is not a contraindication)
Hepatitis A (Hep A) *Give IM* Brands may be used interchangeably.	For people through age 18 years, consult "Summary of Recommendations for Child/ Teen Immunization" at www.immunize.org/catg.d/ p2010.pdf. • All adults who want to be protected from hepatitis A virus (HAV) infection and lack a specific risk factor. • People who travel or work anywhere EXCEPT the U.S., Western Europe, New Zealand, Australia, Canada, and Japan. • People with chronic liver disease; injecting and non-injecting drug users; men who have sex with men; people who receive clotting-factor concentrates; people who work with HAV in lab settings; food handlers when health authorities or private employers determine vaccination to be appropriate. • People who anticipate close personal contact with an international adoptee from a country of high or intermediate endemicity during the first 60 days following the adoptee's arrival in the U.S. • Post exposure: adults age 40yrs or younger with recent (within 2 wks) exposure to HAV, give HepA. For people older than age 40yrs with recent (within 2 wks) exposure to HAV, immune globulin is preferred over HepA vaccine.	• Give 2 doses, spaced 6–18m apart (depending on brand). • If dose #2 is delayed, do not repeat dose #1. Just give dose #2. For Twinrix (hepatitis A and B combination vaccine [GSK] for patients age 18yrs and older only give 3 doses on a 0, 1, 6m schedule. There must be at least 4wks between doses #1 and #2 and at least 5m between doses #2 and #3. An alternative schedule can also be used at 1, 7d, 21-30d, and a booster at 12m.	**Contraindication** Previous sever allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components **Precaution** Moderate or severe acute illness
Hepatitis B (HepB) *Give IM* Brands may be used interchangeably	For people through age 18 years, consult "Summary of Recommendations for Child/ Teen Immunization" at www.immunize.org/catg.d/ p2010.pdf. • All adults who want to be protected from hepatitis B virus infection and lack a specific risk factor. • Household contacts and sex partners of HBsAg-positive people; injecting drug users; sexually active people not in a long-term, mutually monogamous relationship; men who have sex with men; people with HIV; people seeking STD evaluation or treatment; hemodialysis patients and those with renal disease that may result in dialysis; diabetics younger than age 60yrs (diabetics age 60yrs and older may be vaccinated at the clinician's discretion [see ACIP recommendations[1]]); healthcare personnel and public safety workers who are exposed to blood; clients and staff of institutions for the developmentally disabled; inmates of long-term correctional facilities; certain international travelers; and people with chronic liver disease. **Note:** Provide serologic screening for immigrants from endemic areas. If patient is chronically infected, assure appropriate disease management. For sex partners and household contacts of HBsAg-positive people, provide serologic screening and administer initial dose of HepB vaccine at same visit.	Give 3 doses on a 0, 1, 6m schedule • Alternative timing options for vaccination include 0, 2, 4m; 0, 1, 4m; and 0, 1, 2, 12m (Engerix brand only) • There must be at least 4wks between doses #1 and #2, and at least 8wks between doses #2 and #3. Overall, there must be at least 16wks between doses #1 and #3. • Give adults on hemodialysis or with other immunocompromising conditions 1 dose of 40 µg/mL (Recombivax HB) at 0, 1, 6m or 2 doses of 20 µg/mL (Energix B) given simultaneously at 0, 1, 2, 6m. • **Schedule for those who have fallen behind:** If the series is delayed between doses DO NOT start the series over. Continue from where the schedule was interrupted.	**Contraindication** • Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components **Precaution** Moderate or severe acute illness.

ATTACHMENT 5: *Summary of Recommendations for Adult Immunization, cont.*

Summary of Recommendations for Adult Immunization (Age 19 years and older)

Vaccine Name and Route	People for Whom Vaccination is Recommended	Schedule for Vaccination Administration (any vaccine can be given with another)	Contraindications and Precautions (mild illness is not a contraindication)
Zoster (shingles) (HZV) *Give SC*	• People age 60yrs and older. **Note:** Do not test people age 60yrs or older for varicella immunity prior to zoster vaccination. Persons born in the U.S. prior to 1980 can be presumed to be immune to varicella for the purpose of zoster vaccination, regardless of their recollection of having had chickenpox.	• Give 1-time dose if unvaccinated, regardless of previous history of herpes zoster (shingles) or chickenpox. • If 2 or more of the following live virus vaccines are to be given—MMR, Var, HZV, and/or yellow fever—they should be given on the same day. If they are not, space them by at least 28d.	**Contraindications** • Previous severe allergic reaction (e.g., anaphylaxis) to any component of zoster vaccine. • Primary cellular or acquired immunodeficiency. • Pregnancy **Precautions** • Moderate or severe acute illness • Receipt of specific antivirals (i.e., acyclovir, famciclovir or valacyclovir) 24hrs before vaccination, if possible, delay resumption of these antiviral drugs for 14d after vaccination.
Hib (*Haemophilus influenzae* type b) *Give IM*	For people through age 18 years, consult "Summary of Recommendations for Child/Teen Immunization" at. www.immunize.org/catg.d/p2010.pdf • Not routinely recommended for healthy adults. • Those adults at highest risk of serious Hib disease include people who 1) have anatomic or functional asplenia, 2) are undergoing an elective splenectomy, or 3) are recipients of hematopoietic stem cell transplant (HSCT).	• Give 1 dose of any Hib conjugate vaccine to adults in categories 1 or 2 (see 2nd bullet in column to left) if no history of previous Hib vaccine. • For HSCT patients regardless of Hib vaccination history, give 3 doses, at least 4wks apart beginning 6-12m after transplant	**Contraindication** Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components **Precautions** Moderate or severe acute illness
Human papillomavirus (HPV) HPV2, Cervarix) HPV4, Gardasil) *Give IM*	For people through age 18 years, consult "Summary of Recommendations for Child/Teen Immunization" at: www.immunize.org/catg.d/p2010.pdf • For unvaccinated females through age 26yrs: Complete a 3-dose series of HPV2 or HPV4. • For unvaccinated males through age 21yrs: Complete a 3-dose series of HPV4. • For unvaccinated males age 22 through 26yrs: Complete a 3-dose series of HPV4 for those who 1) have sex with men or 2) are immunocompromised as a result of infection (including HIV), disease, or medications, or 3) want to be protected from HPV.	• Give 3 doses on a 0, 1–2, 6m schedule. Use either HPV2 or HPV4 for women, and only HPV4 for men. • There must be at least 4wks between doses #1 and #2 and at least 12wks between doses #2 and #3. Overall, there must be at least 24wks between doses #1 and #3, and 16wks between doses #2 and #3. If possible use the same vaccine product for all three doses.	**Contraindication** Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components **Precautions** • Moderate or severe acute illness • Pregnancy
Inactivated Polio (IPV) *Give IM or SC*	For people through age 18 years, consult "Summary of Recommendations for Child/Teen Immunization" at: www.immunize.org/catg.d/p2010.pdf • Not routinely recommended for U.S. residents age 18yrs and older. **Note:** Adults living in the U.S. who never received or completed a primary series of polio vaccine need not be vaccinated unless they intend to travel to areas where exposure to wild-type virus is likely. Adults with documented prior vaccination can receive 1 booster dose if traveling to polio endemic areas or to areas where the risk of exposure is high.	• Refer to ACIP recommendations[1] regarding unique situations, schedules, and dosing information.	**Contraindication** Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components **Precautions** • Moderate or severe acute illness • Pregnancy

ATTACHMENT 4: *Summary of Recommendations for Adult Immunization, cont.*

Summary of Recommendations for Adult Immunization (Age 19 years and older)

Vaccine Name and Route	People for Whom Vaccination is Recommended	Schedule for Vaccination Administration (any vaccine can be given with another)	Contraindications and Precautions (mild illness is not a contraindication)
Pneumococcal conjugate (PCV13) *Give IM* **Pneumococcal polysaccharide** (PSSV23) *Give IM or SC*	For people through age 18 years, consult "Summary of Recommendations for Child/Teen Immunization" www.immunize.org/catg.d/ p2010.pdf. *All people age 65yrs or older should receive* • 1-time dose of PCV13 (if previously unvaccinated) and 1 dose of PPSV23. *People younger than age 65 years should receive* • 1-time dose of PCV13 and 1st dose of PPSV23 if they have functional or anatomic asplenia, immunocompromising condition (see below), CSF leaks, or are a candidate for or recipient of a cochlear implant, • 2nd dose of PPSV23 if at highest risk of serious pneumococcal infection, including those who - Have anatomic or functional asplenia, including sickle cell disease. - Have an immunocompromising condition, including HIV infection, leukemia, lymphoma, Hodgkin's disease, multiple myeloma, generalized malignancy, chronic renal failure, or nephrotic syndrome. - Are receiving immunosuppressive chemotherapy (including high-dose corticosteroids). - Have received an organ or bone marrow transplant. • PPSV23 only (not PCV13) if younger than 65 years and they have chronic cardiac or pulmonary disease (including asthma), chronic liver disease, alcoholism, diabetes, smoke cigarettes, or live in special environments or social settings (including American Indian/Alaska Natives age 50 through 64yrs if recommended by local public health authorities).	• When recommended (see column at left), give PCV13 and/ or PPSV23 if unvaccinated or if previous vaccination history is unknown. • For healthy people age 65yrs and older, give PCV13 first followed by PPSV23 in 6–12m. • When both PCV13 and PPSV23 are indicated, give PCV13 first followed by PPSV23 in 6–12m. If previously vaccinated with PPSV, give PCV13 at least 12m after PPSV23. For people at highest risk of serious pneumococcal infection, if not previously vaccinated with PPSV23, give PCV13 first, followed by PPSV23 in 8wks • Give another dose of PSV23 to people -Age 65yrs and older if 1st dose was given prior to age 65yrs and 5yrs have elapsed since previous dose of PPSV -Age 19-64yrs who are at highest risk of pnuemococcal infection or rapid antibody loss (see the 3rd bullet in the box to the left for listing of people at highest risk) and 5yrs have elapsed since dose #1.	**Contraindication** Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine, including (for PCV13) to any diphtheria toxoid-containing vaccine or to any of its components. **Precaution** Moderate or severe acute illness.
Meningococcal conjugate vaccine quadrivalent (MenACWY) Menactra, Menveo *Give IM* **Meningococcal polysaccharide vaccine** (MPSV4) Menomune *Give SC*	For people through age 18 years, consult "Summary of Recommendations for Child/Teen Immunization" at www.immunize.org/catg.d/ p2010.pdf. • People with anatomic or functional asplenia or persistent complement component deficiency. • People who travel to or reside in countries in which meningococcal disease is hyperendemic or epidemic (e.g., the "meningitis belt" of Sub-Saharan Africa). • Microbiologists routinely exposed to isolates of*N. meningitidis*. • First year college students through age 21yrs who live in residence halls; see 5th bullet in the box to the right for details.	• Give 2 initial doses of MenACWY separated by 2m to adults 55yrs and younger with risk factors listed in 1st bullet in column to left or if vaccinating adults with HIV infection in this age group. • Give 1 initial dose to all other adults with risk factors (see 2nd–4th bullets in column to left). • Give booster doses every 5yrs to adults with continuing risk (see the 1st–3rd bullets in column to left). • MenACWY is preferred over MPSV4 for people age 55yrs and younger. For people age 56yrs and older who anticipate multiple doses (see the 1st-3rd bullets in column to left) or who have received MenACWY previously, use MenACWY For all others, give 1 dose of MPSV4 • For first year college students age 19-21yrs living in residence halls, give 1 initial dose if unvaccinated and give booster dose if most recent dose was given when younger than 16yrs.	**Contraindication** Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components **Precaution** Moderate or severe acute illness.

ATTACHMENT 5: *2015-2016 Texas Minimum State Vaccine Requirements for Students Grades K-12*

2015-2016 Texas Minimum State Vaccine Requirements for Students Grades K-12

This chart summarizes the vaccine requirements incorporated in the Texas Administrative Code (TAC), Title 25 Health Services, Sections 97.61 to 97.72. This chart is not intended as a substitute for consulting the TAC, which has other provisions and details. Click here for complete TAC language.

The Department of State Health Services (DSHS) is granted authority to set immunization requirements by the Texas Education Code, Chapter 38, Health & Safety, Subchapter A, General Provisions.

IMMUNIZATION REQUIREMENTS

A student shall show acceptable evidence of vaccination prior to entry, attendance, or transfer to a child-care facility or public or private elementary or secondary school in Texas.

Vaccine Required (Attention to notes and footnotes)	Minimum Number of Doses Required by Grade Level			NOTES
	K – 6th	7th	8th – 12th	
Diphtheria/Tetanus/Pertussis (DTaP/DTP/DT/Td/Tdap)[1]	5 doses or 4 doses	3 dose primary series and 1 Tdap/Td booster *within last 5 years*	3 dose primary series and 1 Tdap/Td booster *within last 10 years*	**For K – 6th grade:** 5 doses of diphtheria-tetanus-pertussis vaccine; 1 dose must have been received on or after the 4th birthday. However, 4 doses meet the requirement if the 4th dose was received on or after the 4th birthday. For students aged 7 years and older, 3 doses meet the requirement if 1 dose was received on or after the 4th birthday. **For 7th grade:** 1 dose of Tdap is required if at least **5 years** have passed since the last dose of tetanus-containing vaccine. **For 8th – 12th grade:** 1 dose of Tdap is required when **10 years** have passed since the last dose of tetanus-containing vaccine. Td is acceptable in place of Tdap if a medical contraindication to pertussis exists.
Polio[1]	4 doses or 3 doses			**For K – 12th grade:** 4 doses of polio; 1 dose must be received on or after the 4th birthday. However, 3 doses meet the requirement if the 3rd dose was received on or after the 4th birthday.
Measles, Mumps, and Rubella[1,2] (MMR)	2 doses of MMR	2 doses of measles and 1 dose each of rubella and mumps vaccine		The 1st dose of MMR must be received on or after the 1st birthday. **For K – 6th grade:** 2 doses of MMR are required.
Hepatitis B[2]	3 doses			For students aged 11 – 15 years, 2 doses meet the requirement if adult hepatitis B vaccine (Recombivax®) was received. Dosage (10 mcg/1.0 mL) and type of vaccine (Recombivax®) must be clearly documented. If Recombivax® was not the vaccine received, a 3-dose series is required.
Varicella[1,2,3]	2 doses			The 1st dose of varicella must be received on or after the 1st birthday. **For K – 12th grade:** 2 doses are required.
Meningococcal[1]		1 dose		For 7th – 12th grade, 1 dose of meningococcal vaccine is required upon enrollment. For students 11 – 12 years of age entering 7th grade, 1 dose of meningococcal vaccine is required.
Hepatitis A[1,2]	2 doses			The 1st dose of hepatitis A must be received on or after the 1st birthday. **For K – 6th grade:** 2 doses are required. Special note: a child will not be considered delinquent in this series until 18 months have elapsed since receiving the 1st dose.

[1] Receipt of the dose up to (and including) 4 days before the birthday will satisfy the school entry immunization requirement.
[2] Serologic evidence of infection or serologic confirmation of immunity to measles, mumps, rubella, hepatitis B, hepatitis A, or varicella is acceptable in place of vaccine.
[3] Previous illness may be documented with a written statement from a physician, school nurse, or the child's parent or guardian containing wording such as: "This is to verify that (name of student) had varicella disease (chickenpox) on or about (date) and does not need varicella vaccine." This written statement will be acceptable in place of any and all varicella vaccine doses required.

ATTACHMENT 5: *2015-2016 Texas Minimum State Vaccine Requirements for Students Grades K-12, cont.*

Exemptions

Texas law allows (a) physicians to write medical exemption statements that the vaccine(s) required would be medically harmful or injurious to the health and well-being of the child or household member, and (b) parents/guardians to choose an exemption from immunization requirements for reasons of conscience, including a religious belief. The law does not allow parents/guardians to elect an exemption simply because of inconvenience (for example, a record is lost or incomplete and it is too much trouble to go to a physician or clinic to correct the problem). Schools and child-care facilities should maintain an up-to-date list of students with exemptions, so they may be excluded in times of emergency or epidemic declared by the commissioner of public health.

Instructions for requesting the official exemption affidavit that must be signed by parents/guardians choosing the exemption for reasons of conscience, including a religious belief, can be found at www.ImmunizeTexas.com under "School & Child-Care." Original Exemption Affidavit must be completed and submitted to the school or child-care facility.

For children claiming medical exemptions, a written statement by the physician must be submitted to the school or child-care facility. Unless it is written in the statement that a lifelong condition exists, the exemption statement is valid for only one year from the date signed by the physician.

Provisional Enrollment

All immunizations should be completed by the first date of attendance. The law requires that students be fully vaccinated against the specified diseases. A student may be enrolled provisionally if the student has an immunization record that indicates the student has received at least one dose of each specified age-appropriate vaccine required by this rule. To remain enrolled, the student must complete the required subsequent doses in each vaccine series on schedule and as rapidly as is medically feasible and provide acceptable evidence of vaccination to the school. A school nurse or school administrator shall review the immunization status of a provisionally enrolled student every 30 days to ensure continued compliance in completing the required doses of vaccination. If, at the end of the 30-day period, a student has not received a subsequent dose of vaccine, the student is not in compliance and the school shall exclude the student from school attendance until the required dose is administered.

Additional guidelines for provisional enrollment of students transferring from one Texas public or private school to another, students who are dependents of active duty military, and students who are homeless can be found in the TAC, Title 25 Health Services, Sections 97.66 and 97.69.

Documentation

Since many types of personal immunization records are in use, any document will be acceptable provided a physician or public health personnel has validated it. The month, day, and year that the vaccination was received must be recorded on all school immunization records created or updated after September 1, 1991.

Texas Department of State Health Services • Immunization Branch • MC-1946 • P. O. Box 149347 • Austin, TX 78714-9347 • (800) 252-9152

Stock No. 6-14 Rev. 06/2015

ATTACHMENT 6: *Vaccination of Persons with Primary and Secondary Immune Deficiencies*

A

Appendix A-26

Appendix A

Vaccination of Persons with Primary and Secondary Immune Deficiencies

PRIMARY				
Category	**Specific Immunodeficiency**	**Contraindicated Vaccines[1]**	**Risk-Specific Recommended Vaccines[1]**	**Effectiveness & Comments**
B-lymphocyte (humoral)	Severe antibody deficiencies (e.g., X-linked agammaglobulinemia and common variable immunodeficiency)	OPV[2] Smallpox LAIV BCG Ty21a (live oral typhoid) Yellow fever	Pneumococcal Consider measles and varicella vaccination.	The effectiveness of any vaccine is uncertain if it depends only on the humoral response (e.g., PPSV or MPSV4). IGIV interferes with the immune response to measles vaccine and possibly varicella vaccine.
	Less severe antibody deficiencies (e.g., selective IgA deficiency and IgG subclass deficiency	OPV[2] BCG Yellow fever Other live vaccines appear to be safe.	Pneumococcal	All vaccines likely effective. Immune response might be attenuated.
T-lymphocyte (cell-mediated and humoral)	Complete defects (e.g., severe combined immunodeficiency [SCID] disease, complete DiGeorge syndrome)	All live vaccines [3,4,5]	Pneumococcal	Vaccines may be ineffective.
	Partial defects (e.g., most patients with DiGeorge syndrome, Wiskott-Aldrich syndrome, ataxia-telangiectasia)	All live vaccines [3,4,5]	Pneumococcal Meningococcal Hib (if not administered in infancy)	Effectiveness of any vaccine depends on degree of immune suppression.
Complement	Persistent complement, properdin, or factor B deficiency	None	Pneumococcal Meningococcal	All routine vaccines likely effective.
Phagocytic function	Chronic granulomatous disease, leukocyte adhesion defect, and myeloperoxidase deficiency.	Live bacterial vaccines[3]	Pneumococcal[6]	All inactivated vaccines safe and likely effective. Live viral vaccines likely safe and effective.

[1] Other vaccines that are universally or routinely recommended should be given if not contraindicated.
[2] OPV is no longer available in the United States.
[3] Live bacterial vaccines: BCG, and Ty21a *Salmonella typhi* vaccine.
[4] Live viral vaccines: MMR, MMRV, OPV, LAIV, yellow fever, varicella, zoster, rotavirus, and vaccinia (smallpox). Smallpox vaccine is not recommended for children or the general public.
[5] Regarding T-lymphocyte immunodeficiency as a contraindication for rotavirus vaccine, data exist only for severe combined immunodeficiency.
[6] Pneumococcal vaccine is not indicated for children with chronic granulomatous disease beyond age-based universal recommendations for PCV. Children with chronic granulomatous disease are not at increased risk for pneumococcal disease..

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Epidemiology and Prevention of Vaccine-Preventable Diseases, 13th Edition

April, 2015

ATTACHMENT 6: ***Vaccination of Persons with Primary and Secondary Immune Deficiencies, cont.***

Vaccination of Persons with Primary and Secondary Immune Deficiencies

SECONDARY			
Specific Immunodeficiency	**Contraindicated Vaccines[1]**	**Risk-Specific Recommended Vaccines[1]**	**Effectiveness & Comments**
HIV/AIDS	OPV[2] Smallpox BCG LAIV Withhold MMR and varicella in severely immunocompromised persons. Yellow fever vaccine might have a contraindication or a precaution depending on clinical parameters of immune function.[3]	Pneumococcal Consider Hib (if not administered in infancy) and Meningococcal vaccination.	MMR, varicella, rotavirus, and all inactivated vaccines, including inactivated influenza, might be effective.[4]
Malignant neoplasm, transplantation, immunosuppressive or radiation therapy	Live viral and bacterial, depending on immune status.[5,6]	Pneumococcal	Effectiveness of any vaccine depends on degree of immune suppression.
Asplenia	None	Pneumococcal Meningococcal Hib (if not administered in infancy)	All routine vaccines likely effective.
Chronic renal disease	LAIV	Pneumococcal Hepatitis B[7]	All routine vaccines likely effective.

[1] Other vaccines that are universally or routinely recommended should be given if not contraindicated.
[2] OPV is no longer available in the United States.
[3] Symptomatic HIV infection or CD4+ T-lymphocyte count of <200/mm^3 or <15% of total lymphocytes for children <6 years of age is a contraindication to yellow fever vaccine administration. Asymptomatic HIV infection with CD4+ T-lymphocyte count of 200 to 499/ mm^3 for persons ≥6 years of age or 15% to 24% of total lymphocytes for children <6 years of age is a precaution for yellow fever vaccine administration. Details of yellow fever vaccine recommendations are available from CDC. (CDC. Yellow Fever Vaccine: Recommendations of the ACIP. *MMWR* 2010:59 [No. RR-7].)
[4] HIV-infected children should receive IG after exposure to measles, and may receive varicella, measles, and yellow fever vaccine if CD4+ T-lymphocyte count is ≥15%.
[5] Live bacterial vaccines: BCG, and Ty21a *Salmonella typhi* vaccine.
[6] Live viral vaccines: MMR, MMRV, OPV, LAIV, yellow fever, varicella, zoster, rotavirus, and vaccinia (smallpox). Smallpox vaccine is not recommended for children or the general public.
[7] Indicated based on the risk from dialysis-based bloodborne transmission.

Adapted from Table 13, ACIP General Recommendations on Immunization. January 2011

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Appendix A

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ATTACHMENT 7: *Medical Management of Anaphylaxis and Adverse Reactions in Children and Teens, and Adults*

Purpose:
The purpose of these orders is to provide for immediate response to anaphylaxis and other adverse reactions that may occur when administering vaccines and drugs.

Rationale:
All vaccines have the potential to cause an adverse reaction. In order to minimize adverse reactions, patients should be carefully screened for precautions and contraindications before vaccine is administered. Even with careful screening, reactions may occur. These reactions can vary from trivial and inconvenient (e.g., soreness, itching) to severe and life threatening (e.g., anaphylaxis). If reactions occur, staff should be prepared with procedures for their management. The tables below describe procedures to follow if various reactions occur.

General Orders for Anaphylaxis and Adverse Reactions:

Reaction	Symptoms	Management
Localized	Soreness, redness, itching, or swelling at the injection site	Apply a cold compress to the injection site
	Slight bleeding	Apply an adhesive compress over the injection site.
	Continuous bleeding	Place thick layer of gauze pads over site and maintain direct and firm pressure; raise the bleeding injection site (e.g., arm) above the level of the patient's heart.
Psychological fright and syncope (fainting)	Fright before injection is given	Have patient sit or lie down for the vaccination.
	Extreme paleness, sweating, coldness of the hands and feet, nausea, light-headedness, dizziness, weakness, or visual disturbances	Have patient lie flat or sit with head between knees for several minutes. Loosen any tight clothing and maintain an open airway. Apply cool, damp cloths to patient's face and neck.
	Fall, without loss of consciousness	Examine the patient to determine if injury is present before attempting to move the patient. Place patient flat on back with feet elevated.
	Loss of consciousness	Check the patient to determine if injury is present before attempting to move the patient. Place patient flat on back with feet elevated. Call 911 if patient does not recover immediately.
Anaphylaxis	Sudden or gradual onset of generalized itching, erythema (redness), or urticaria (hives); angioedema (swelling of the lips, face, or throat); severe bronchospasm (wheezing); shortness of breath; shock; abdominal cramping; or cardiovascular collapse	See "***Medical Management of Anaphylaxis and Adverse Reactions in Children and Teens***" and "***Medical Management of Anaphylaxis and Adverse Reactions in Adults***" on the following pages for detailed steps to follow in treating anaphylaxis.

ATTACHMENT 7: *Medical Management of Anaphylaxis and Adverse Reactions in Children and Teens*

1. If itching and swelling are confined to the injection site where the injection was given, observe patient closely for the development of generalized symptoms.

2. If symptoms are generalized, activate the emergency medical system (EMS; e.g., call 911) and notify the Regional Medical Director. This should be done by a second person, while the primary nurse assesses the airway, breathing, circulation, and level of consciousness of the patient.

3. Drug Dosing Information:
   a. **First-line treatment:** Administer aqueous epinephrine 1:1000 dilution (i.e., 1 mg/mL) intramuscularly; the standard dose is 0.01 mg/kg body weight, up to 0.3 mg maximum single dose in children and 0.5 mg maximum in adolescents (see chart on next page).
   b. **Secondary treatment option:** For hives or itching, you may also administer diphenhydramine either orally or by intramuscular injection; the standard dose is 1–2 mg/kg body weight, up to 30 mg maximum dose in children and 50 mg maximum dose in adolescents (see dosage chart on next page).

   (Note: Exercise caution when administering oral medication during anaphylactic event. Ensure the patient has the capacity to swallow without aspirating.)

4. Monitor the patient closely until EMS arrives. Perform cardiopulmonary resuscitation (CPR) if necessary (see ATTACHMENT 9: ***CPR Flow Chart)***, and maintain airway. Keep patient in supine position (flat on back) unless he or she is having breathing difficulty. If patient is having difficulty breathing, head may be elevated, provided blood pressure is adequate to prevent loss of consciousness. If blood pressure is low, elevate legs. Monitor blood pressure and pulse every 5 minutes.

Normal Blood Pressure in Children by Age

Age	Systolic Blood Pressure (mm Hg)		Diastolic Blood Pressure (mm Hg)	
	Female	Male	Female	Male
Neonate (1 day)	60 to 76	60 to 74	31 to 45	30 to 44
Neonate (4 days)	67 to 83	68 to 84	37 to 53	35 to 53
Infant (1 month)	73 to 91	74 to 94	36 to 56	37 to 55
Infant (3 months)	78 to 100	81 to 103	44 to 64	45 to 65
Infant (6 months)	82 to 102	87 to 105	46 to 66	48 to 68
Infant (1 year)	86 to 104	85 to 103	40 to 58	37 to 56
Child (2 years)	88 to 105	88 to 106	45 to 63	42 to 61
Child (7 years)	96 to 113	97 to 115	57 to 75	57 to 76
Adolescent (15 years)	110 to 127	113 to 131	65 to 83	64 to 83

Blood pressure ranges for neonate and infant (1 to 6 months) are from Gemelli M, Manganaro R, Mami C, De Luca F. Longitudinal study of blood pressure during the 1st year of life. Eur J Pediatr. 1990:149:318-320

Blood pressure ranges for infant (1 year), child, and adolescent are from National High Blood Pressure Education Program Working Group on High Blood Pressure in Children and Adolescents. *The Fourth Report on the Diagnosis, Evaluation, and Treatment of High Blood Pressure in Children and Adolescents*. Bethesda, MD: National Heart, Lung, and Blood Institute; 2005. NIH publication 05-5267.

5. If EMS has not arrived and symptoms are still present, repeat dose of epinephrine every 5–15 minutes, up to a total of 3 doses, depending on patient's response. Do not exceed the maximum total dose.

6. Record all vital signs, medications administered to the patient, including the time, dosage, response, and the name of the medical personnel who administered the medication, and other relevant clinical information.

ATTACHMENT 8: *Medical Management of Anaphylaxis and Adverse Reactions in Children and Teens, cont.*

7. Notify the patient's primary care physician.

For your convenience, approximate dosages based on weight and ages are provided in the charts below. Please confirm that you are administering the correct dose for your patient.

First Line Treatment: Epinephrine (the recommended dose for epinephrine is 0.01 mg/kg body weight up to 0.5 mg maximum dose). May be repeated every 5 – 15 minutes for a total of 3 doses.					
	Age Group	**Range of weight (lb.)**	**Range of weight (kg)[1]**	**Epinephrine Dose**	
				1 mg/mL injectable (1:1000 dilution) intramuscular Minimum dose: 0.05 mL	EpiPen (Dey, L.P.) Epinephrine auto- injector 0.15 mg or 0.3 mg
Infants and Children	1-6 months	9-19 lb.	4-8.5 kg	0.05 mL (or mg)	off label
	7-36 months	20-32 lb.	9-14.5 kg	0.1 mL (or mg)	off label
	37-59 months	33-39 lb.	15-17.5 kg	0.15 mL (or mg)	0.15 mg
	5-7 years	40-56 lb.	18-25.5 kg	0.2–0.25 mL (or mg)	0.15 mg
	8-10 years	57-76 lb.	26-34.5 kg	0.25–0.3 mL[2] (or mg)	0.15 mg or 0.3 mg
Teens	11-12 years	77-99 lb.	35-45 kg	0.35–0.4 mL (or mg)	0.3 mg
	13 years & older	100+ lb.	46+ kg	0.5 mL (or mg)[3]	0.3 mg

(Note: If body weight is known, then dosing by weight is preferred. If weight is not known or not readily available, dosing by age is appropriate.)

Secondary Treatment Option: Diphenhydramine (the recommended dose for diphenhydramine [Benadryl] is 1–2 mg/kg body weight up to a maximum dose of 30 mg for children and 50 mg for teens.)				
	Age Group	**Range of weight (lb.)**	**Range of weight (kg)[1]**	**Diphenhydramine Dose**
				12.5 mg/5 mL liquid 25 mg or 50 mg tablets 50 mg/mL injectable (IV or IM)
Infants and Children	7-36 months	20-32 lb.	9–14.5 kg	10 mg-20 mg
	37-59 months	33-39 lb.	15–17.5 kg	15 mg-30 mg
	5-7 years	40-56 lb.	18–25.5 kg	20 mg-30 mg[2]
	8-12 years	57-99 lb.	26–45 kg	30 mg
Teens	13 years & older	100+ lb.	46+ kg	50 mg[3]

Note: If body weight is known, then dosing by weight is preferred. If weight is not known or not readily available, dosing by age is appropriate.

[1]Rounded weight at the 50th percentile for each age range
[2]Maximum dose for children
[3]Maximum dose for teens

Unless otherwise noted with an *, information in this document mirrors current IAC published guidance www.immunize.org • www.vaccineinformation.org

Sources as noted on the IAC document, Management of Vaccine Reactions in Children and Teens:
Boyce JA, Assa'ad A, Burks AW, et al. Guidelines for the Diagnosis and Management of Food Allergy in the United States: Report of the NIAID- Sponsored Expert Panel. *Allergy Clin Immunol* 2010; 126(6):S1–S57.
Simons FE, Camargo CA. Anaphylaxis: Rapid recognition and treatment. In: Up-to-date Bochnew BS (Ed). Up-to-date: Waltham, MA, 2010. American Pharmacists Association, Grabenstein, JD, *Pharmacy-Based Immunization Delivery*, 2002

ATTACHMENT 7: *Medical Management of Anaphylaxis and Adverse Reactions in Adults*

1. If itching and swelling are confined to the injection site where the injection was given, observe patient closely for the development of generalized symptoms.
2. If symptoms are generalized, activate the emergency medical system (EMS; e.g., call 911) and notify the on-call physician. This should be done by a second person, while the primary nurse assesses the airway, breathing, circulation, and level of consciousness of the patient
3. Drug Dosing Information:
   a. **First-line treatment:** Administer aqueous epinephrine 1:1000 dilution intramuscularly, 0.01 mL/kg/dose (adult dose ranges from 0.3 mL to 0.5 mL, with maximum single dose of 0.5 mL).
   b. **Secondary treatment option:** For hives or itching, you may also administer diphenhydramine either orally or by intramuscular injection; the standard dose is 1–2 mg/kg, up to 50 mg maximum single dose.
4. Monitor the patient closely until EMS arrives. Perform cardiopulmonary resuscitation (CPR) if necessary (see ATTACHMENT 9: ***CPR Flow Chart)***, and maintain airway. Keep patient in supine position (flat on back) unless he or she is having breathing difficulty. If breathing is difficult, patient's head may be elevated, provided blood pressure is adequate to prevent loss of consciousness. If blood pressure is low, elevate legs. Monitor blood pressure and pulse every 5 minutes.
5. If EMS has not arrived and symptoms are still present, repeat dose of epinephrine every 5–15 minutes for up to 3 doses, depending on patient's response.
6. Record all vital signs, medications administered to the patient, including the time, dosage, response, and the name of the medical personnel who administered the medication, and other relevant clinical information.
7. Notify the patient's primary care physician.

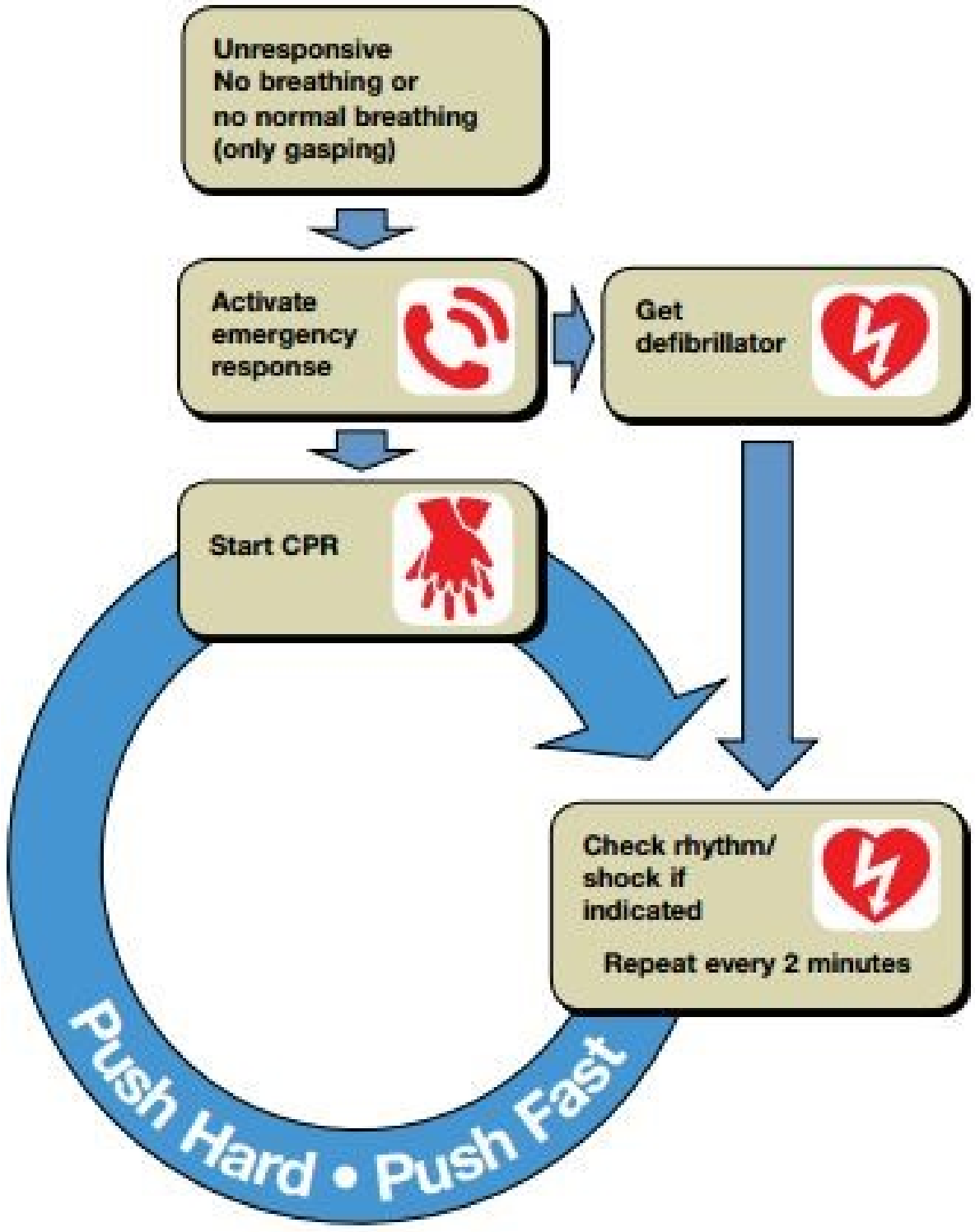
Unless otherwise noted with an *, information in this document mirrors current IAC published guidance **www.immunize.org • www.vaccineinformation.org**

References:

Simons FE, Camargo CA. Anaphylaxis: Rapid recognition and treatment. In: UpToDate, Bochner BS (Ed). UpToDate: Waltham, MA, 2013.

Boyce JA, Assa'ad A, Burks AW, et al. Guidelines for the Diagnosis and Management of Food Allergy in the United States: Report of the NIAID Sponsored Expert Panel. *Allergy Clin Immunol 2010; 126(6):S1-S57.*

ATTACHMENT 8: ***CPR Flowchart***



ATTACHMENT 9: *Minimum Standard Requirements for Emergency Kit Contents*

Aqueous epinephrine 1:1000 dilution, in ampules, vials of solution, or prefilled syringes, including epinephrine auto-injectors (e.g., EpiPen and Auvi-Q). Both EpiPen Jr. (0.15 mg) and adult EpiPens (0.30 mg) should be available. At least three of each should be available.

Diphenhydramine (Benadryl) injectable (50 mg/mL solution) or oral (12.5 mg/5 mL liquid, 25 or 50 mg capsules/tablets)

Syringes: 1 and 3 cc

Needles: 22–25g, 5/8”, 1", 1½", and 2" for epinephrine and diphenhydramine. Recommend using safety needles. For ampules, use filtered needles.

Gauze bandages (2x2 or 4x4 size)

Alcohol wipes

Adhesive bandages

Nitrile gloves (small, medium, and large)

Pediatric & adult size pocket non-rebreather masks with one-way valve

Oxygen (if available)

Stethoscope

Sphygmomanometer (blood pressure measuring device) with child, adult-size, and extra-large cuffs

Flashlight with extra batteries (for examination of mouth and throat)

Wrist watch with second hand or other timing device

Cell phone or access to an onsite phone

ATTACHMENT 10: *Immunization Screening Checklist – Adults*

Patient name: _____ Date of birth: ____/____/____ (mo.) (day) (yr.)

Screening Checklist for Contraindications to Vaccines for Adults

For patients: The following questions will help us determine which vaccines you may be given today. If you answer "yes" to any question, it does not necessarily mean you should not be vaccinated. It just means additional questions must be asked. If a question is not clear, please ask your healthcare provider to explain it.

	Yes	No	Don't Know
1. Are you sick today?	☐	☐	☐
2. Do you have allergies to medications, food, a vaccine component, or latex?	☐	☐	☐
3. Have you ever had a serious reaction after receiving a vaccination?	☐	☐	☐
4. Do you have a long-term health problem with heart disease, lung disease, asthma, kidney disease, metabolic disease (e.g., diabetes), anemia, or other blood disorder?	☐	☐	☐
5. Do you have cancer, leukemia, HIV/AIDS, or any other immune system problem?	☐	☐	☐
6. In the past 3 months, have you taken medications that weaken your immune system, such as cortisone, prednisone, other steroids, or anticancer drugs, or have you had radiation treatments?	☐	☐	☐
7. Have you had a seizure or a brain or other nervous system problem?	☐	☐	☐
8. During the past year, have you received a transfusion of blood or blood products, or been given immune (gamma) globulin or an antiviral drug?	☐	☐	☐
9. For women: Are you pregnant or is there a chance you could become pregnant during the next month?	☐	☐	☐
10. Have you received any vaccinations in the past 4 weeks?	☐	☐	☐

Form completed by: _____ Date: _____

Form reviewed by: _____ Date: _____

Did you bring your immunization record card with you? **yes** ☐ **no** ☐

It is important for you to have a personal record of your vaccinations. If you don't have a personal record, ask your healthcare provider to give you one. Keep this record in a safe place and bring it with you every time you seek medical care. Make sure your healthcare provider records all your vaccinations on it.

Technical content reviewed by the Centers for Disease Control and Prevention

IMMUNIZATION ACTION COALITION Saint Paul, Minnesota • 651-647-9009 • www.immunize.org • www.vaccineinformation.org

www.immunize.org/catg.d/p4065.pdf • Item #P4065 (1/15)

ATTACHMENT 10: *Immunization Screening Checklist – Adults (cont.)*

Information for Health Professionals about the Screening Checklist for Contraindications To Vaccines for Adults

Are you interested in knowing why we included a certain question on the screening checklist? If so, read the information below. If you want to find out even more, consult the references listed at the bottom of this page.

1. Are you sick today? *[all vaccines]*
There is no evidence that acute illness reduces vaccine efficacy or increases vaccine adverse events (1). However, as a precaution with moderate or severe acute illness, all vaccines should be delayed until the illness has improved. Mild illnesses (such as upper respiratory infections or diarrhea) are NOT contraindications to vaccination. Do not withhold vaccination if a person is taking antibiotics.

2. Do you have allergies to medications, food, a vaccine component, or latex? *[all vaccines]*
If a person has anaphylaxis after eating gelatin, do not administer MMR or varicella vaccine. A local reaction to a prior vaccine dose or vaccine components (e.g., latex) is not a contraindication to a subsequent dose or vaccine containing that component. For a table of vaccines supplied in vials or syringes that contain latex, go to www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/latex-table.pdf. For an extensive list of vaccine components, see reference 2.
An egg-free recombinant influenza vaccine (RIV3) may be used in people age 18 years and older with egg allergy of any severity who have no other contraindications. People younger than age 18 years who have experienced a serious systemic or anaphylactic reaction (e.g., hives, swelling of the lips or tongue, acute respiratory distress, or collapse) after eating eggs can usually be vaccinated with inactivated influenza vaccine (IIV); consult ACIP recommendations (see reference 3).

3. Have you ever had a serious reaction after receiving a vaccination? *[all vaccines]*
History of anaphylactic reaction (see question 2) to a previous dose of vaccine or vaccine component is a contraindication for subsequent doses (1). Under normal circumstances, vaccines are deferred when a precaution is present. However, situations may arise when the benefit outweighs the risk (e.g., during a community pertussis outbreak).

4. Do you have a long-term health problem with heart disease, lung disease, asthma, kidney disease, metabolic disease (e.g., diabetes), anemia, or other blood disorder? *[LAIV]*
The safety of intranasal live attenuated influenza vaccine (LAIV) in people with these conditions has not been established. These conditions, including asthma in adults, should be considered precautions for the use of LAIV.

5. Do you have cancer, leukemia, HIV/AIDS, or any other immune system problem? *[LAIV, MMR, VAR, ZOS]*
Live virus vaccines (e.g., LAIV, measles-mumps-rubella [MMR], varicella [VAR], zoster [ZOS]) are usually contraindicated in immunocompromised people. However, there are exceptions. For example, MMR vaccine is recommended and varicella vaccine should be considered for adults with CD4+ T-lymphocyte counts of greater than or equal to 200 cells/μL. Immunosuppressed people should not receive LAIV. For details, consult the ACIP recommendations (1, 4, 5).

6. In the past 3 months, have you taken medications that weaken your immune system, such as cortisone, prednisone, other steroids, or anticancer drugs, or have you had radiation treatments? *[LAIV, MMR, VAR, ZOS]*
Live virus vaccines (e.g., LAIV, MMR, VAR, ZOS) should be postponed until after chemotherapy or long-term high-dose steroid therapy has ended. For details and length of time to postpone, consult the ACIP statement (1, 3). To find specific vaccination schedules for stem cell transplant (bone marrow transplant) patients, see reference 6. LAIV can be given only to healthy non-pregnant people younger than age 50 years.

7. Have you had a seizure or a brain or other nervous system problem? *[influenza, Td/Tdap]*
Tdap is contraindicated in people who have a history of encephalopathy within 7 days following DTP/DTaP given before age 7 years. An unstable progressive neurologic problem is a precaution to the use of Tdap. For people with stable neurologic disorders (including seizures) unrelated to vaccination, or for people with a family history of seizure, vaccinate as usual. A history of Guillain-Barré syndrome (GBS) is a consideration with the following: 1) Td/Tdap: if GBS has occurred within 6 weeks of a tetanus-containing vaccine and decision is made to continue vaccination, give Tdap instead of Td if no history of prior Tdap; 2) Influenza vaccine (IIV/LAIV): if GBS has occurred within 6 weeks of a prior influenza vaccine, vaccinate with IIV if at high risk for severe influenza complications.

8. During the past year, have you received a transfusion of blood or blood products, or been given immune (gamma) globulin or an antiviral drug? *[LAIV, MMR, VAR]*
Certain live virus vaccines (e.g., LAIV, MMR, VAR, ZOS) may need to be deferred, depending on several variables. Consult the most current ACIP recommendations for current information on intervals between antiviral drugs, immune globulin or blood product administration and live virus vaccines. (1)

9. For women: Are you pregnant or is there a chance you could become pregnant during the next month? *[MMR, LAIV, VAR, ZOS]*
Live virus vaccines (e.g., MMR, VAR, ZOS, LAIV) are contraindicated one month before and during pregnancy because of the theoretical risk of virus transmission to the fetus. Sexually active women in their childbearing years who receive live virus vaccines should be instructed to practice careful contraception for one month following receipt of the vaccine. On theoretical grounds, inactivated poliovirus vaccine should not be given during pregnancy; however, it may be given if risk of exposure is imminent and immediate protection is needed (e.g., travel to endemic areas). Use of Td or Tdap is not contraindicated in pregnancy. At the provider's discretion, either vaccine may be administered during the 2nd or 3rd trimester. (1, 3, 4, 5, 7, 8)

10. Have you received any vaccinations in the past 4 weeks?
[LAIV, MMR, VAR, yellow fever] People who were given either LAIV or an injectable live virus vaccine (e.g., MMR, VAR, ZOS, yellow fever) should wait 28 days before receiving another vaccination of this type. Inactivated vaccines may be given at any spacing interval if they are not administered simultaneously.

References:

1. CDC. General recommendations on immunization. at www.cdc.gov/vaccines/pubs/acip-list.htm
2. Table of Vaccine Components: www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf.
3. CDC. Prevention and control of seasonal influenza with vaccines. Recommendations of the ACIP — 2014–2015 Influenza Season at www.cdc.gov/mmwr/pdf/wk/mm6332.pdf, pages 691–7
4. CDC. Measles, mumps, and rubella — vaccine use and strategies for elimination of measles, rubella, and congenital rubella syndrome and control of mumps. *MMWR* 1998; 47 (RR-8)
5. CDC. Prevention of varicella: Recommendations of the Advisory Committee on Immunization Practices. *MMWR* 2007; 56 (RR-4)
6. Tomblyn M, Einsele H, et al. Guidelines for preventing infectious complications among hematopoietic stem cell transplant recipients: a global perspective. *Biol Blood Marrow Transplant* 15:1143–1238, 2009; at www.cdc.gov/vaccines/pubs/hematocell-transplts.htm.
7. CDC. Notice to readers: Revised ACIP recommendation for avoiding pregnancy after receiving a rubella-containing vaccine. *MMWR* 2001; 50 (49)
8. CDC. Prevention of pertussis, tetanus, and diphtheria among pregnant and postpartum women and their infants: Recommendations of the ACIP. *MMWR* 2008; 57 (RR-4)