### **ACHA Guidelines**

# Recommendations for Institutional Prematriculation Immunizations

mmunizations offer safe and effective protection from vaccine-preventable diseases. The United States is experiencing re-emergence of these diseases, in part due to factors such as unimmunized and under-immunized persons and global travel. The American College Health Association (ACHA) strongly supports the use of vaccines to protect the health of our individual students and our campus communities. In recognition of the vital role that vaccine coverage plays in community immunity (herd immunity), ACHA discourages use of nonmedical exemptions to required vaccines.

This guidance is provided to facilitate implementation of a comprehensive institutional immunization policy. Best practices for institutions of higher education include following Recommendations for Institutional Prematriculation Immunizations (RIPI) guidelines, encouraging students who request nonmedical exemptions to required vaccines to be

counseled by a health service clinician, and considering exclusion of un-immunized students from school during outbreaks of vaccine-preventable diseases. Institutions may also be to subject to additional requirements for prematriculation vaccinations and the granting of exemptions by state law

The ACHA Vaccine Preventable Diseases Advisory Committee updates this document in accordance with changing public health recommendations. These guidelines follow Advisory Committee on Immunization Practices (ACIP) recommendations published by the U.S. Centers for Disease Control and Prevention (CDC). Links to full information regarding ACIP provisional and final recommendations, including schedules, indications, precautions, and contraindications, are available at the CDC National Immunization Program website: http://www.cdc.gov/vaccines/acip/index.htm.

nonmedical exempt	ions to required vaccines to be			
VACCINE	VACCINATION SCHEDULE	MAJOR INDICATIONS	CONTRAINDICATIONS AND PRECAUTIONS	
Measles, Mumps, Rubella (MMR)	Two doses of MMR at least 28 days apart after 12 months of age.	All college students born after 1956 without lab evidence of disease.  All health care professional students without other evidence of immunity should receive two doses of MMR. Those born before 1957 without other evidence of immunity should receive one dose if not in an outbreak setting and two doses if in an outbreak.	Pregnancy, history of hypersensitivity or anaphylaxis to any of the components in the vaccine. Receipt of blood products and moderate or severe acute infections. Guidelines exist for vaccination of persons with altered immunocompetence.	
Polio - Inactivated (IPV) - Oral poliovirus (OPV-no longer available in U.S.)	Primary series in childhood with IPV alone, OPV alone, or IPV/OPV sequentially; IPV booster only if needed for travel after age 18 years.	IPV for certain international travelers to areas or countries where polio is epidemic or endemic.	History of hypersensitivity to any of the components of the vaccine.	
Varicella	Two doses of varicella-containing vaccine at least 12 weeks apart if vaccinated between 1 and 12 years of age and at least 4 weeks apart if vaccinated at age 13 years or older.	All college students without other evidence of immunity (e.g., born in the U.S. before 1980, a history of disease, two prior doses of varicella vaccine, or a positive antibody).  All health care professional students without a history of disease, with one prior dose of vaccine, or with a negative antibody titer should receive a total of	Pregnancy, history of hypersensitivity or anaphylaxis to any of the components in the vaccine, and severe illness. Guidelines exist for vaccination of persons with altered immunocompetence.	

two doses of vaccine.

## VACCINE Tetanus, Diphtheria, Pertussis

- DT: pediatric (< age 7 years) preparation of diphtheria and tetanus toxoids.
- DTaP: pediatric (< age 7 years) preparation of diphtheria, tetanus toxoids, and acellular pertussis.
- DTP (also known as DTwP): pediatric (< age 7 years) preparation of diphtheria, tetanus toxoids, and whole cell pertussis (no longer available in the U.S.).
- Td: 7 years and older preparation of tetanus toxoid and reduced diphtheria toxoid.
- Tdap: adolescent and older preparation of tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis.

#### VACCINATION SCHEDULE

Primary series in childhood (4 doses: DT, DTaP, DTP, or Td)

**Booster doses:** For adolescents 11-18 and adults 19-64: single dose of Tdap. Tdap can be administered regardless of interval since the last tetanus or diphtheria toxoid-containing vaccine.

Routine booster dose intervals: Adults should receive decennial Td boosters, beginning 10 years after receiving Tdap, until guidance on subsequent Tdap booster doses is available.

Tetanus prophylaxis in wound management: For all age groups, patients who require a tetanus toxoid containing vaccine as part of wound management should receive Tdap instead of Td if they have not previously received Tdap. If Tdap is not available or was administered previously, Td should be administered.

#### MAJOR INDICATIONS

One dose of Tdap for all individuals, ages 11-64, regardless of interval since last Td booster.

In particular, students enrolled in health care professional programs should receive Tdap.

Those adults age 65 years and older who have or anticipate having close contact with an infant aged less than 12 months should receive a single dose of Tdap.

## CONTRAINDICATIONS AND PRECAUTIONS

History of hypersensitivity or serious adverse reaction to any of the components in the vaccine.

There is a theoretical risk of increased rates of local or systemic reactions when two diphtheria toxoid-containing vaccines are administered within a short interval (i.e., on different days). Efforts should be made to administer Tdap and tetravalent meningococcal conjugate (MCV4) vaccines simultaneously if both are indicated. If simultaneous vaccination is not feasible, Tdap and MCV4 vaccines (which contain diphtheria toxoid) can be administered in any sequence.

#### Human Papillomavirus Vaccine Bivalent (HPV2) or Quadrivalent (HPV4)

Females 11 or 12 years old, females 13-26 years old who have not received the vaccine previously, males 11 or 12 years old, and males 13-21 years old who have not received the vaccine previously: three doses at 0, 1-2, and 6 months for the quadrivalent vaccine.

For the bivalent vaccine, females only, three doses at 0, 1, and 6 months.

All females 11-26 years old (bivalent or quadrivalent vaccine). All males 11-21 years old, males 11-26 years old who have sex with men, and 11-26 year old males with compromised immune systems (quadrivalent vaccine). Other males 22-26 years old may be vaccinated.

The quadrivalent vaccine is indicated for prevention of cervical cancers and pre-cancers and genital warts. Quadrivalent vaccine is also indicated for use in both females and males for the prevention of anal cancer and anal intraepithelial dysplasia caused by HPV types included in the vaccine. The bivalent vaccine is indicated for prevention of cervical cancers and precancers only.

No HPV or Pap test screening is required prior to administering vaccine; routine cervical cancer screening should continue according to current recommendations.

Pregnancy, history of hypersensitivity to yeast or to any vaccine component; moderate or severe acute illnesses (defer vaccine until improved); may be given to immunocompromised males and females, but vaccine responsiveness and efficacy may be reduced.

VACCINE	VACCINATION SCHEDULE	MAJOR INDICATIONS	CONTRAINDICATIONS AND PRECAUTIONS
Hepatitis A Vaccine	Given as a series of 2 doses (given at 0, 6-12 mo.) for age 12 months or greater. *	Recommended for routine use in all adolescents through the age of 18 and in particular for adolescent and adult high-risk groups (i.e., persons traveling to countries where hepatitis A is moderately or highly endemic, men who have sex with men, users of injectable and noninjectable drugs, persons who have clotting-factor disorders, persons working with nonhuman primates, and persons with chronic liver disease).	History of hypersensitivity to any of the components of the vaccine.
Hepatitis B Vaccine	Given as a series of 3 age appropriate doses (given at 0, 1-2 mo., and 6-12 mo.) at any age. Adolescents age 11-15 years can be given 2 adult doses (given at 0 and 4-6 mo.).*	All college students. In particular students enrolled in health care professional programs should receive Hepatitis B vaccination.	History of hypersensitivity to any of the components of the vaccine.
Meningococcal Quadrivalent (A, C, Y, W-135)	Initial dose of conjugate vaccine: 11-12 yrs of age	professional programs should receive Hepatitis B vaccination.  Adolescents 11-18 years of age and other populations at increased risk, including college students living in residence halls/similar housing, etc., persons with terminal complement deficiencies or asplenia, laboratory personnel with exposure to aerosolized meningococci, and travelers to hyperendemic or endemic areas of the world. Nonfreshmen college students may choose to be vaccinated to reduce their risk of meningococcal disease.**	History of hypersensitivity or serious adverse reaction to any of the components in the vaccine.
- Conjugate (Preferred)	Booster dose: 16 yrs of age If initial dose given age 13-15 yrs: booster dose at 16-18 yrs of age		Avoid vaccinating persons who are known to have experienced Guillain-Barre (GBS) syndrome.
- Polysaccharide (Acceptable alternative if conjugate not available)	If initial dose given age ≥16 yrs, no booster dose required  Persons with persistent complement component deficiencies (e.g., C5-C9, properidin, factor H, or factor D) or asplenia should receive a 2-dose primary series administered 2 months apart and then receive a booster dose every 5 years. Adolescents aged 11 through 18 years with HIV infection should be routinely vaccinated with a 2-dose primary series. Other persons with HIV who are vaccinated should receive a 2-dose primary series administered 2 months apart. All other persons at increased risk for meningococcal disease (e.g., microbiologists or travelers to an epidemic or highly endemic country) should receive a single primary dose.  For colleges and university with meningococcal vaccine policies as a requirement of enrollment or on-campus living: students < 21 years of age should have documentation of a dose of conjugate vaccine at ≥16 years of age. The booster dose can be administered anytime after the 16th birthday to ensure that the		There is a theoretical risk of increased rates of local or systemic reactions when two diphtheria toxoid-containing vaccines are administered within a short interval (i.e., on different days). Efforts should be made to administer Tdap and tetravalent meningococcal conjugate (MCV4) vaccines simultaneously if both are indicated. If simultaneous vaccination is not feasible, Tdap and MCV4 vaccines (which contain diphtheria toxoid) can be administered in any sequence.
	cal vaccine policies as a requirement of enrollment or on-campus living: students < 21 years of age should have documentation of a dose of conjugate vaccine at ≥16 years of age. The booster dose can be administered anytime after the 16th birthday to ensure that the booster is provided. The minimum interval between doses of meningococcal conjugate vaccine is 8 weeks.		
	vaccine is 8 weeks.  Routine vaccination of healthy persons who are not at increased risk for exposure is not recommended after age 21 years.		

#### **Other recommendations:**

<sup>\*</sup>Combined hepatitis A and B vaccines may be given as a series of 3 doses (given at 0, 1-2, and 6-12 mo.) for 18 years of age and older.
\*\*Colleges may target all matriculating freshmen if targeting those in residence halls/similar housing is not feasible.

VACCINE	VACCINATION SCHEDULE	MAJOR INDICATIONS	CONTRAINDICATIONS AND PRECAUTIONS
Influenza - Trivalent inactivated influenza vaccine (TIV)	Annually	All members of a campus community age 6 months or older should receive annual vaccination.	History of hypersensitivity to any of the components of the vaccine.
- Live attenuated influenza vaccine (LAIV; licensed for healthy, nonpregnant persons age 2-49 years).		College students at high risk of complications from the flu such as students who have asthma, diabetes, or students with certain immunodeficiencies; and students with contact with a high-risk individual.	
		Students enrolled in health care professional programs should receive annual influenza vaccination.	
Pneumococcal Polysaccharide Vaccine-23 valent	Childhood, adolescence, adulthood	Young adults with certain medical conditions: chronic pulmonary disease (including asthma and current history of smoking for college students 19 to 64 years old); chronic cardiovascular disease; diabetes mellitus; chronic liver diseases, including liver disease as a result of alcohol abuse (e.g. cirrhosis); chronic alcoholism, chronic renal failure, or nephrotic syndrome; functional or anatomic asplenia (e.g. sickle cell disease or splenectomy [if elective splenectomy is planned, vaccinate at least 2 weeks before surgery]); immunosuppressive conditions; and cochlear implants and cerebrospinal fluid leaks. Vaccinate as close to HIV diagnosis as possible.  Other indications: certain Alaska Natives and American Indian populations and residents of nursing homes or other long-term care facilities. One-time revaccination after 5 years for persons with chronic renal failure or nephrotic syndrome; functional or anatomic asplenia (e.g.	History of hypersensitivity to any of the components of the vaccine.
		sickle cell disease or splenectomy); or immunosuppressive conditions. For persons aged > 65 years, one-time revaccination if they were vaccinated > 5 years previously and were aged <65 years at the time of primary vaccination.	

#### **Other recommendations:**

Immunization requirements and recommendations for international travel may vary, depending on personal medical history and travel destination. Anyone anticipating international travel should contact a health care provider for specific information.



## SAMPLE IMMUNIZATION RECORD

This is a SAMPLE immunization record form. If reproduced for use by a college or university health center, please insert your health center's contact information. This form should not be returned to ACHA.

PARTI	L					
Name _		First Name			Middle Name	
_				Last Name		
ddress _						
CE.	,	Street		City	State	Zip
ote of Ei	ntry/	_ Date of Birth	1 D Y	School ID#		
tatus:	Part-time	Full-time	Graduate	Undergraduate	Professional	
	II – TO BE CO nation must be in I		SIGNED BY Y	OUR HEALTH CARE	PROVIDER.	
(Two c	doses required at le		dents born after 195	6 and all health care profession		
1. Dos	se 1 given at age 12	2 months or later		#1		
2. Dos	se 2 given at least 2	28 days after first dose.		#2	2//Y	
B. POL		least 28 days apart. Thre	ee primary series are	acceptable. See ACIP websit	te for details.)	
1. OP	V alone (oral Sabir	n three doses): #1M	//#2	/#3	//Y	
2. IPV	//OPV sequential:	IPV #1////	IPV #2/_	/OPV #3/_	/OPV #4/_	/
3. IPV	/ alone (injected Sa	alk four doses): #1	_//#	2 <u>/ / / Y #3 M</u>		/Y
	RICELLA in the U.S. before	1980, a history of chicke	en pox, a positive va	ricella antibody, or two doses	s of vaccine meets the require	ment.)
1. His	story of Disease	Yes No or	Birth in U.S. bef	ore 1980 Yes No	_	
2. Vai	ricella antibody	/ / / M D Y	Result: Reactive	Non-reactive		
3. Imi	munization					
a. L	Oose #1			#1	M D Y	
b. I	Dose #2 given at lea	ast 12 weeks after first d	lose ages 1-12 years	#2	2//	
8	and at least 4 weeks	s after first dose if age 1	3 years or older.		M D Y	
). TET	ANUS. DIPHT	THERIA, PERTUS	SIS			
		eted? Yes No _				
Dai	ie of <u>iasi</u> dose iii se	eries://				
	te of most recent be					
2 Dot	ic of most recent DO	nocter doce: / /				
2. Dat		poster dose://_	Y			

Tdap booster recommended for ages 11-64 unless contraindicated.

## $SAMPLE\ IMMUNIZATION\ RECORD\ ({\tt CONTD.})$

E. HUMAN PAPILLOMAVIRUS VACCINE (HPV2 or HPV4)  (Three doses of vaccine for females and males 11-26 years of age at 0, 1-2, and 6 month intervals.)
Immunization (indicate which preparation) Quadrivalent (HPV4) or Bivalent (HPV2)
a. Dose #1/ _/ b. Dose #2/ _/ c. Dose #3/ _/
M D Y M D Y
F. INFLUENZA Date of last dose:/
Trivalent inactivated influenza vaccine (TIV) Live attenuated influenza vaccine (LAIV)
G. HEPATITIS A
1. Immunization (hepatitis A)
a. Dose #1/ b. Dose #2/ /
2. Immunization (Combined hepatitis A and B vaccine)
a. Dose #1/ b. Dose #2// c. Dose #3/ _/
H. HEPATITIS B  (All college and health care professional students. Three doses of vaccine or two doses of adult vaccine in adolescents 11-15 years of age, or positive hepatitis B surface antibody meets the requirement.)
1. Immunization (hepatitis B)
a. Dose #1// b. Dose #2/_/ c. Dose #3/_/
Adult formulation Child formulation Adult formulation Child formulation Child formulation
2. Immunization (Combined hepatitis A and B vaccine)
a. Dose #1/ b. Dose #2// c. Dose #3//
3. Hepatitis B surface antibody Date// Result: Reactive Non-reactive
I. PNEUMOCOCCAL POLYSACCHARIDE VACCINE (One dose for members of high-risk groups.)
Date/Y
J. MENINGOCOCCAL QUADRIVALENT  (A, C, Y, W-135) One or 2 doses for all college students – revaccinate every 5 years if increased risk continues.
1. Quadrivalent conjugate (preferred; administer simultaneously with Tdap if possible).
a. Dose #1/ b. Dose #2/ _/
2. Quadrivalent polysaccharide (acceptable alternative if conjugate not available).
Date//

## SAMPLE IMMUNIZATION RECORD (CONTD.)

#### K. TUBERCULOSIS (TB) SCREENING/TESTING<sup>1</sup>

Please answer the following q	uestions:				
Have you ever had close conta	act with persons known or suspect	ed to have active TB disease?		☐ Yes	☐ No
Were you born in one of the c (If yes, please CIRCLE the co	☐ Yes	□ No			
Afghanistan Algeria Angola Argentina Armenia Azerbaijan Bahrain Bangladesh Belarus Belize Benin Bhutan Bolivia (Plurinational State of) Bosnia and Herzegovina Botswana Brazil Brunei Darussalam Bulgaria Burkina Faso Burundi Cabo Verde Cambodia Cameroon Central African Republic Chad China Colombia Comoros Congo	Côte d'Ivoire Democratic People's Republic of Korea Democratic Republic of the Congo Djibouti Dominican Republic Ecuador El Salvador Equatorial Guinea Eritrea Estonia Ethiopia Fiji Gabon Gambia Georgia Ghana Guatemala Guinea-Bissau Guyana Haiti Honduras India Indonesia Iran (Islamic Republic of) Iraq Kazakhstan	Kenya Kiribati Kuwait Kyrgyzstan Lao People's Democratic Republic Latvia Lesotho Liberia Libya Lithuania Madagascar Malawi Malaysia Maldives Mali Marshall Islands Mauritania Mauritius Mexico Micronesia (Federated States of) Mongolia Morocco Mozambique Myanmar Namibia Nauru Nepal	Nicaragua Niger Nigeria Niue Pakistan Palau Panama Papua New Guinea Paraguay Peru Philippines Poland Portugal Qatar Republic of Korea Republic of Moldova Romania Russian Federation Rwanda Saint Vincent and the Grenadines Sao Tome and Principe Senegal Serbia Seychelles Sierra Leone Singapore Solomon Islands Somalia	South Africa South Sudan Sri Lanka Sudan Suriname Swaziland Tajikistan Thailand Timor-Leste Togo Trinidad and Tr Turkey Turkmenistan Turalu Uganda Ukraine United Republi Tanzania Uruguay Uzbekistan Vanuatu Venezuela (Bo Republic of) Viet Nam Yemen Zambia Zimbabwe	ic of livarian
	zation Global Health Observatory, s, refer to <a href="http://apps.who.int/ghod.">http://apps.who.int/ghod.</a>		ountries with incidence rates of	$\geq 20$ cases per 10	)0,000
Have you had frequent or prol (If yes, CHECK the countries,	onged visits* to one or more of th above)	e countries listed above with a hi	gh prevalence of TB disease?	☐ Yes	□ No
Have you been a resident and/facilities, and homeless shelter	for employee of high-risk congregates)?	ate settings (e.g., correctional fac	ilities, long-term care	☐ Yes	□ No
Have you been a volunteer or health-care worker who served clients who are at increased risk for active TB disease?					□ No
	r of any of the following groups t - medically underserved, low-inc			☐ Yes	□ No
If the answer is YES possible but at least p	to any of the above questions, [i	insert your college/university nar semester).	me] requires that you receive TI	B testing as soon	as
If the answer to all o	of the above questions is NO, no i	further testing or further action is	required.		
* The significance of t	he travel exposure should be disci	ıssed with a health care provider	· and evaluated.		

The American College Health Association has published guidelines on "Tuberculosis Screening and Targeted Testing of College and University Students." To obtain the guidelines, visit <a href="http://www.acha.org/Publications/Guidelines\_WhitePapers.cfm">http://www.acha.org/Publications/Guidelines\_WhitePapers.cfm</a>.

#### TUBERCULOSIS (TB) RISK ASSESSMENT (to be completed by health care provider) Clinicians should review and verify the information above. Persons answering YES to any of the questions in Part K are candidates for either Mantoux tuberculin skin test (TST) or Interferon Gamma Release Assay (IGRA), unless a previous positive test has been documented. History of a positive TB skin test or IGRA blood test? (If yes, document below) Yes \_\_\_\_ No History of BCG vaccination? (If yes, consider IGRA if possible.) 1. TB Symptom Check Does the student have signs or symptoms of active pulmonary tuberculosis disease? Yes \_\_\_\_\_ No If No, proceed to 2 or 3 If yes, check below: ☐ Cough (especially if lasting for 3 weeks or longer) with or without sputum production ☐ Coughing up blood (hemoptysis) ☐ Chest pain ☐ Loss of appetite ☐ Unexplained weight loss ☐ Night sweats ☐ Fever Proceed with additional evaluation to exclude active tuberculosis disease including tuberculin skin testing, chest x-ray, and sputum evaluation as indicated. 2. Tuberculin Skin Test (TST) (TST result should be recorded as actual millimeters (mm) of induration, transverse diameter; if no induration, write "0". The TST interpretation should be based on mm of induration as well as risk factors.)\*\* Date Given: \_\_\_/\_\_/ Date Read: \_\_\_/\_\_/ M D Y Result: \_\_\_\_\_ mm of induration \*\*Interpretation: positive \_\_\_\_ negative Date Given: \_\_\_/\_\_/ Date Read: \_\_\_/\_\_/ M D Y \*\*Interpretation: positive negative Result: \_\_\_\_\_ mm of induration \*\*Interpretation guidelines >5 mm is positive: • Recent close contacts of an individual with infectious TB • persons with fibrotic changes on a prior chest x-ray, consistent with past TB disease • organ transplant recipients and other immunosuppressed persons (including receiving equivalent of >15 mg/d of prednisone for >1 month.) HIV-infected persons >10 mm is positive: ■ recent arrivals to the U.S. (<5 years) from high prevalence areas or who resided in one for a significant\* amount of time injection drug users mycobacteriology laboratory personnel residents, employees, or volunteers in high-risk congregate settings persons with medical conditions that increase the risk of progression to TB disease including silicosis, diabetes mellitus, chronic renal failure, certain types of cancer (leukemias and lymphomas, cancers of the head, neck, or lung), gastrectomy or jejunoileal bypass and weight loss of at least 10% below ideal body weight. >15 mm is positive: persons with no known risk factors for TB who, except for certain testing programs required by law or regulation, would otherwise not be \* The significance of the travel exposure should be discussed with a health care provider and evaluated. 3. Interferon Gamma Release Assay (IGRA) Result: negative\_\_\_ positive\_\_\_ indeterminate\_ borderline (T-Spot only)

4. Chest x-ray: (Required if TST or IGRA is positive)

Date of chest x-ray: \_\_\_/\_\_/\_\_\_ Result: normal\_\_\_\_ abnormal\_\_\_\_\_

Result: negative positive indeterminate borderline (T-Spot only)

#### Management of Positive TST or IGRA All students with a positive TST or IGRA with no signs of active disease on chest x-ray should receive a recommendation to be treated for latent TB with appropriate medication. However, students in the following groups are at increased risk of progression from LTBI to TB disease and should be prioritized to begin treatment as soon as possible. Infected with HIV Recently infected with *M. tuberculosis* (within the past 2 years) History of untreated or inadequately treated TB disease, including persons with fibrotic changes on chest radiograph consistent with prior TB disease Receiving immunosuppressive therapy such as tumor necrosis factor-alpha (TNF) antagonists, systemic corticosteroids equivalent to/greater than 15 mg of prednisone per day, or immunosuppressive drug therapy following organ transplantation Diagnosed with silicosis, diabetes mellitus, chronic renal failure, leukemia, or cancer of the head, neck, or lung Have had a gastrectomy or ieiunoileal bypass Weigh less than 90% of their ideal body weight Cigarette smokers and persons who abuse drugs and/or alcohol ••Populations defined locally as having an increased incidence of disease due to M. tuberculosis, including medically underserved, low-income populations Student agrees to receive treatment Student declines treatment at this time **HEALTH CARE PROVIDER**

#### **END of SAMPLE FORM**

Phone ( )

Signature \_\_\_\_

Name \_

Address

If reproduced for use by a college or university health center, please insert your health center's contact information.

This form should not be returned to ACHA.

Prepared by ACHA's Vaccine-Preventable Diseases Advisory Committee

