ACHA Guidelines

Immunization Recommendations for College Students

Immunizations offer safe and effective protection from vaccine-preventable diseases and outbreaks. The United States is experiencing re-emergence of these diseases, in part due to factors such as un-immunized 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 (also known as herd immunity), ACHA discourages use of nonmedical exemptions for required vaccines.

This guidance is provided to facilitate implementation of a comprehensive institutional immunization policy. Best practices for institutions of higher education include the following Immunization Recommendations for College Students (IRCS), 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 subject to additional requirements for pre-matriculation vaccinations and the granting of exemptions by state law. Health science students have additional responsibility to their patients and should meet the same standards as health care personnel.

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/index.html.

In addition to implementing a comprehensive institutional immunization policy, institutions are also encouraged to screen for tuberculosis (TB) infection, especially those students who are at increased risk, as this is a key strategy for controlling and preventing infection on college and university campuses. *ACHA Guidelines: Tuberculosis Screening and Targeted Testing of College and University Students* are available at www.acha.org/guidelines.

VACCINES TO REDUCE OUTBREAKS

Outbreaks of communicable diseases cause great disruption and emotional and financial burdens for campuses, students, and their families. Assuring compliance with the vaccines recommended by the CDC is particularly important in preventing disease clusters and outbreaks on campus.

As COVID-19 vaccines continue to move through the FDA authorization process from Emergency Use to Biologic Licensure, it is important to note that these vaccines are safe and effective at preventing severe illness and death. All members of a college community should be encouraged to follow CDC guidelines and stay up to date on COVID-19 vaccination.

Recommendations for the use of COVID-19 vaccines can be found at www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/covid-19.html. CDC's interim clinical considerations for use of COVID-19 vaccines can be found at www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html.

Influenza Vaccine

Several preparations of influenza vaccine are available. Please review https://www.cdc.gov/flu/prevent/different-flu-vaccines.html for options.

VACCINATION SCHEDULE: Annually

MAJOR INDICATIONS: All members of a campus community age 6 months or older should receive annual influenza vaccination.

CONTRAINDICATIONS AND PRECAUTIONS: Contraindications and precautions vary based on the type of influenza vaccine being considered (https://www.cdc.gov/flu/professionals/acip/summary/summary-recommendations.htm#table3). In general, a history of severe allergic reaction (e.g., anaphylaxis) to any component of the vaccine or to a previous dose of any vaccine is a contraindication. Precautions should be taken in individuals with a moderate or severe acute illness (with or without fever), history of Guillain-Barre syndrome within 6 weeks of receiving an influenza vaccine. For persons with a history of severe allergic reaction (e.g., anaphylaxis) to any egg-based IIV or LAIV of any valency, the provider can consider administering ccIIV4 or RIV4; for persons with a history of severe allergic reaction (e.g., anaphylaxis) to any ccIIV of any valency, the provider can consider administering ccIIV4. Providers can also consider consulting with an allergist to help determine which vaccine component is responsible for the allergic reaction.

Measles, Mumps, Rubella (MMR) Vaccine

VACCINATION SCHEDULE: Two doses of MMR at least 28 days apart after 12 months of age.

MAJOR INDICATIONS:

- All college students born after 1956 without evidence of immunity* should receive 2 doses. *Evidence of immunity: born before 1957, documentation of receipt of MMR vaccine; laboratory evidence of immunity or disease
- All health care professional students without evidence of immunity should receive two doses of MMR (if they do not have documentation of having had 2 MMR doses)
- A 3rd dose should be given in a mumps outbreak when public health authorities consider the individual part of a group or population at increased risk
- Those born before 1957 without other evidence of immunity should receive one dose, or two doses in an outbreak

CONTRAINDICATIONS: Pregnancy; severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component; severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised); family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent.

PRECAUTIONS: Recent (≤11 months) receipt of antibody-containing blood product (specific interval depends on product); history of thrombocytopenia or thrombocytopenic purpura; need for tuberculin skin testing or interferon-gamma release assay (IGRA) testing; moderate or severe acute illness with or without fever.

Meningococcal Quadrivalent (A, C, W, Y) Vaccine

Note: Information below refers to conjugate vaccine. Polysaccharide vaccine is no longer available.

- MenACWY-CRM (Menveo®)
- MenACWY-D (Menactra®)
- MenACWY-TT (MenQuadfi®)

VACCINATION SCHEDULE:

- Initial dose: 11–12 yrs. of age
- Booster dose: 16 yrs. of age
- If initial dose given age 13–15 years: booster dose at 16–18 years of age
- If initial dose given age ≥16 years, no booster dose required

See CDC guidelines for persons with altered immune competence.

For colleges and universities with meningococcal vaccine policies as a requirement of enrollment or living on campus: students 21 years of age and younger should have documentation of a dose of conjugate vaccine at \geq 16 years of age. The booster dose can be administered any time after the 16th birthday. The minimum interval between doses of meningococcal conjugate vaccine is 8 weeks.

Routine vaccination of healthy persons who are not at increased risk for exposure is not recommended after age 21 years.

MAJOR INDICATIONS: Adolescents 11–18 years of age and other populations at increased risk, including college students living in residence halls/similar housing, etc., persons with persistent complement deficiencies or asplenia, laboratory personnel with exposure to aerosolized meningococci, and travelers to hyperendemic or endemic areas of the world. Non-freshmen college students may choose to be vaccinated to reduce their risk of meningococcal disease.

CONTRAINDICATIONS: Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component.

For MenACWY-D and Men ACWY-CRM only: severe allergic reaction to any diphtheria toxoid- or CRM197-containing vaccine.

For MenACWY-TT only: severe allergic reaction to a tetanus toxoid-containing vaccine.

PRECAUTIONS: Moderate or severe acute illness with or without fever

Serogroup B Meningococcal Vaccine

- MenB-4C (Bexsero®, 2-dose series)
- MenB-FHbp (Trumenba®, 2- or 3-dose series)

VACCINATION SCHEDULE:

- For MenB-4C: 0–2 months
- For MenB-FHbp: 0–2–6 months (for those at increased risk) or 0–6 months (for those at no increased risk)
- NOTE: The two MenB vaccines are not interchangeable, so the same product must be used for all doses

MAJOR INDICATIONS: Routinely recommended for persons at increased risk due to:

- Outbreaks of serogroup B meningococcal disease
- Persistent complement component deficiencies
- Treatment with eculizumab for hemolytic uremic syndrome or paroxysmal nocturnal hemoglobinuria
- Anatomic or functional asplenia including sickle cell disease
- Laboratory workers routinely exposed to isolates of N. meningitidis

Based on shared clinical decision-making, may be given to those not at increased risk:

- Adolescents and young adults age 16–23 for short term protection (preferred age 16–18)
- Serogroup B vaccines may be administered with MenACWY but at different anatomic site, if possible

CONTRAINDICATIONS:

Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component

PRECAUTIONS:

Pregnancy; (for MenB-4C only) latex sensitivity; moderate or severe acute illness with or without fever

¹ Generally, ACIP makes shared clinical decision-making recommendations when individuals may benefit from vaccination, but broad vaccination of people in that group is unlikely to have population-level impact. (https://www.cdc.gov/vaccines/acip/acip-scdm-faqs.html, accessed February 26, 2020)

Tetanus, Diphtheria, Pertussis Vaccine

- DT: pediatric (<age 7 years), preparation of diphtheria and tetanus toxoids
- DTaP: pediatric (<age 7 years), preparation of diphtheria, tetanus toxoids, and acellular pertussis
- Td: 7 years and older, preparation of tetanus and diphtheria toxoids
- Tdap: adolescent and older, preparation of tetanus, diphtheria toxoids, 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 tetanus boosters at 10-year intervals, beginning 10 years after receiving Tdap. Subsequently, either Tdap or Td may be used for booster doses.

Tetanus prophylaxis in wound management: Persons with three or more doses of tetanus-toxoid-containing vaccine: for clean and minor wounds, administer Tdap or Td if more than 10 years since last dose of tetanus-toxoid-containing vaccine; for all other wounds, administer Tdap or Td if more than 5 years since last dose of tetanus-toxoid-containing vaccine. Tdap is preferred for persons who have not previously received Tdap or whose Tdap history is unknown.

MAJOR INDICATIONS: All college students. One dose of Tdap for all individuals ages 11–64 regardless of interval since last Td booster.

CONTRAINDICATIONS: Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component. For Tdap only: Encephalopathy (e.g., coma, decreased level of consciousness, prolonged seizures), not attributable to another identifiable cause, within 7 days of administration of previous dose of DTP, DTaP, or Tdap

PRECAUTIONS: Guillain-Barré syndrome (GBS) within 6 weeks after a previous dose of tetanus-toxoid—containing vaccine; history of Arthus-type hypersensitivity reactions after a previous dose of diphtheria-toxoid-containing or tetanus-toxoid-containing vaccine (defer vaccination until at least 10 years have elapsed since the last tetanus-toxoid—containing vaccine); moderate or severe acute illness with or without fever. **For Tdap only:** Progressive or unstable neurological disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized.

Varicella Vaccine

VACCINATION SCHEDULE: 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.

MAJOR INDICATIONS:

- All college students without evidence of immunity (e.g., born in the U.S. before 1980, a history of disease, two prior doses of varicella vaccine, or an antibody level consistent with immunity)
- All health care professional students with only one documented dose of vaccine or with a negative serologic antibody test should receive a total of two doses of vaccine

CONTRAINDICATIONS: Pregnancy, severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component; severe immunodeficiency (e.g., hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, long-term immunosuppressive therapy or patients with HIV infection who are severely immunocompromised); family history of altered immunocompetence, unless verified clinically or by laboratory testing as immunocompetent.

PRECAUTIONS: Recent (≤11 months) receipt of antibody-containing blood product (specific interval depends on product); receipt of specific antiviral drugs (acyclovir, famciclovir, or valacyclovir) 24 hours before vaccination (avoid use of these antiviral drugs for 14 days after vaccination); use of aspirin or aspirin-containing products; moderate or severe acute illness with or without fever.

OTHER VACCINES RECOMMENDED FOR ADULTS

The following vaccines are recommended for adults. College matriculation provides the opportunity to assure that students receive the appropriate vaccines.

Hepatitis A Vaccine

VACCINATION SCHEDULE: Two-dose series: Havrix® 6–12 months apart or Vaqta® 6–18 months apart (minimum interval: 6 months) *

MAJOR INDICATIONS: Recommended for routine use in all adolescents through the age of 18 and in particular for adolescent and adult high-risk groups (i.e., chronic liver disease, HIV infection, men who have sex with men, injection or non-injection drug use, persons experiencing homelessness, work with hepatitis A virus in research laboratory or with nonhuman primates with hepatitis A virus infection, travel in countries with high or intermediate endemic hepatitis A, close personal contact with international adoptee (e.g., household or regular babysitting) in first 60 days after arrival from country with high or intermediate endemic hepatitis A, pregnancy if at risk for infection or severe outcome from infection during pregnancy, and settings for exposure, including healthcare settings targeting services to injection or non-injection drug users or group homes and nonresidential day care facilities for developmentally disabled persons

CONTRAINDICATIONS: Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component including neomycin

PRECAUTIONS: Moderate or severe acute illness with or without fever

*Combined hepatitis A and B vaccines may be given as a series of 3 or 4 doses for 18 years of age and older:

- 3-dose series HepA-HepB (Twinrix® at 0, 1, 6 months. Minimum interval for dose 1 to dose 2: 4 weeks; minimum interval for dose 2 to dose 3: 5 months)
- 4-dose series HepA-HepB (Twinrix®) accelerated schedule of 3 doses at 0, 7, and 21–30 days, followed by a booster dose at 12 months

Hepatitis B Vaccine

- Hepatitis B recombinant (Engerix-B[®], Recombivax HB[®])
- Hepatitis B recombinant, adjuvanted HepB-CpG (Heplisav-B®)

VACCINATION SCHEDULE:

- 2- or 3-dose series:
 - 2-dose series only applies when 2 doses of Heplisav-B* are used at least 4 weeks apart
 - 3-dose series Engerix-B, pre-Hevbrio, or Recombivax HB at 0, 1, 6 months

Minimum intervals:

- · dose 1 to dose 2: 4 weeks
- · dose 2 to dose 3: 8 weeks
- · dose 1 to dose 3: 16 weeks

INTERCHANGEABILITY AND DOSING SCHEDULE:

Series consisting of a combination of 1 dose of adjuvanted HepB-CpG and Hep B):

- Adhere to the 3-dose schedule, minimum of 4 weeks between dose 1 & 2; 8 weeks between dose 2 & 3; and 16 weeks between dose 1 & 3
- If HepB-CpG is substituted for dose 2 of Hep B, it is recommended that the HepB-CpG is the third dose (given a minimum of 4 weeks from the previous dose to complete the 3-dose series)

MAJOR INDICATIONS: All adults aged 19–59 years. In particular, students enrolled in health care professional programs should receive hepatitis B vaccination.

CONTRAINDICATIONS: Individuals with a history of severe allergic reaction (e.g., anaphylaxis) after a previous dose of any hepatitis B vaccine or to any component of Heplisav-B, including yeast. Heplisav-B and PreHevbrio are not recommended in pregnancy due to lack of safety data in pregnant persons.

PRECAUTIONS: Moderate or severe acute illness with or without fever

*Combined hepatitis A and B vaccines may be given as a series of 3 or 4 doses for 18 years of age and older:

- 3-dose series HepA-HepB (Twinrix® at 0, 1, 6 months. Minimum interval for dose 1 to dose 2: 4 weeks; minimum interval for dose 2 to dose 3: 5 months)
- 4-dose series HepA-HepB (Twinrix®) accelerated schedule of 3 doses at 0, 7, and 21–30 days, followed by a booster dose at 12 months

Human Papillomavirus (HPV) Vaccine

• 9-valent (HPV9 [Gardasil 9®]) [Note: Bivalent (HPV2) and Quadrivalent (HPV4) are no longer available in the US.]

VACCINATION SCHEDULE:

Administer human papillomavirus (HPV) vaccine to all persons through age 26 years.

The number of doses of HPV vaccine to be administered depends on age at initial HPV vaccination:

- Age 15 years or older at initial vaccination: 3-dose series at 0, 1–2 months, 6 months (minimum intervals: dose 1 to dose 2: 4 weeks; dose 2 to dose 3: 12 weeks; dose 1 to dose 3: 5 months. Repeat dose if administered too soon.)
- Aged 9–14 years at HPV vaccine series initiation and received 1 dose or 2 doses less than 5 months apart: administer additional 1 dose
- Aged 9–14 years at HPV vaccine series initiation and received 2 doses at least 5 months apart: series completed; 0 additional dose needed

Administer human papillomavirus (HPV) vaccine using shared clinical decision-making to persons aged 27 to 45. Administer 2 or 3 doses based on age at the initial dose, as above.

MAJOR INDICATIONS: If not vaccinated previously: all adults through age 26 years

CONTRAINDICATIONS: Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component. Pregnancy testing is not needed before vaccination; HPV vaccination is not recommended until after pregnancy; no intervention needed if inadvertently vaccinated while pregnant.

PRECAUTIONS: Moderate or severe acute illness with or without fever

Pneumococcal Vaccine

- Pneumococcal conjugate vaccine (PCV13 [Prevnar 13®]; PCV15 [Vaxneuvance®]; PCV20 [Prevnar20®])
- Pneumococcal polysaccharide vaccine (PPSV23 [Pneumovax®23])

VACCINATION SCHEDULE:

- 4-dose series of PCV13 at age 2, 4, 6, and 12–15 months
- booster of PPSV23 between ages 6–18 years (if no previous PPSV23)

MAJOR INDICATIONS:

- Adults 65 years or older (see https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html#note-pneumo)
- Adults aged 19–64 years old with certain underlying medical conditions or other risk factors who have not previously received a pneumococcal conjugate vaccine or whose previous vaccination history is unknown: 1 dose PCV15 or 1 dose

PCV20. If PCV15 is used, this should be followed by a dose of PPSV23 given at least 1 year after the PCV15 dose. A minimum interval of 8 weeks between PCV15 and PPSV23 can be considered for adults with an immunocompromising condition, cochlear implant, or cerebrospinal fluid leak to minimize the risk of invasive pneumococcal disease caused by serotypes unique to PPSV23 in these vulnerable groups.

CONTRAINDICATIONS: Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component. For PCV15 and PCV 20, severe allergic reaction (e.g., anaphylaxis) to any diphtheria-toxoid—containing vaccine or to its vaccine component.

PRECAUTIONS: Moderate or severe acute illness with or without fever

Polio Vaccine

- Inactivated (IPV)
- Oral poliovirus (OPV is no longer available in U.S.)

VACCINATION SCHEDULE: Primary series in childhood with IPV alone, OPV alone, or IPV/OPV sequentially; IPV booster only if needed for travel after age 18 years.

MAJOR INDICATIONS: IPV for certain international travelers to areas or countries where polio is epidemic or endemic.

CONTRAINDICATIONS: Severe allergic reaction (e.g., anaphylaxis) after a previous dose or to a vaccine component.

PRECAUTIONS: Pregnancy. Moderate or severe acute illness with or without fever

These guidelines were developed by ACHA's Vaccine-Preventable Diseases Advisory Committee and are updated annually.



APPENDIX A: 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.

PART I

Name						
	First Name	Middle 1	Name		La	ast Name
Address						
		Street		City	State	Zip
Email				Phone Number		
Date of Entry	/ Da	te of Birth/_		School ID#		
Status: Part-	time Ful	I-time	Graduate	Undergraduate	Professional	-

PART II: TO BE COMPLETED AND SIGNED BY YOUR HEALTH CARE PROVIDER.

All information must be in English. To document COVID-19 vaccination, attach a copy of the patient's vaccine card to this form.

A. MMR (MEASLES, MUMPS, RUBELLA)

1. Dose 1 given at age 12 months or later.

2. Dose 2 given at least 28 days after first dose.

#2 ___/__/ M _D _Y

B. MENINGOCOCCAL QUADRIVALENT (A, C, Y, W-135)

1. Quadrivalent conjugate



C. SEROGROUP B MENINGOCOCCAL

The vaccine series must be completed with the same vaccine.

1. MenB-RC (Bexsero) __ routine ___outbreak -related

a. Dose #1 __/_ / ___ b. Dose #2 __/_ / ____
M D Y

OR

- 2. MenB-FHbp (Trumenba) __routine ___outbreak-related
 - a. Dose #1 ____/ __/ ___ b. Dose #2 ___/ __/ __ c. Dose #3 ___/ _/ ___

D. TETANUS, DIPHTHERIA, PERTUSSIS

- 1. Primary series completed? Yes ___ No ___ Date
- Date of <u>last</u> dose in series: ___/__/___/
- 2. Date of most recent booster dose: ___/__/____
- Type of booster: Td ____ Tdap ____

E. INFLUENZA
Quadrivalent (IIV4) Recombinant (RIV4) Live attenuated influenza vaccine (LAIV)
Date of last dose://
F. 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//
G. HEPATITIS B
Heplisav-B (2 dose series) is not interchangeable with other hepatitis B vaccines (3 dose series) but can substituted for dose #2 and #
1. Immunization (hepatitis B)
a. Dose #1/ b. Dose #2// c. Dose #3/_/ M D Y
Adult formulation Child formulation Child formulation Child formulation Child formulation
HepB-CpG (Heplisav-B) HepB-CpG (Heplisav-B)
2. Immunization (Combined hepatitis A and B vaccine)
a. Dose #1 / / b. Dose #2 _ / / c. Dose #3 _ / /
3. Quantitative hepatitis B surface antibody test
Date/ Result:
H. HUMAN PAPILLOMAVIRUS VACCINE
Immunization (indicate which preparation, if known) 9-valent (HPV9) or other
a. Dose #1// b. Dose #2/ c. Dose #3//
I. VARICELLA
1. Immunization
a. Dose #1#1
b. Dose #2
2. History of disease Yes No or Birth in U.S. before 1980 Yes No
J. PNEUMOCOCCAL VACCINES
Most recent dose: Date/ and type (circle one): PCV15, PCV20, PPSV23

K. POLIO	
1.OPV alone (oral Sabin three doses): #1/	#2/ #3/
2.IPV/OPV sequential: IPV #1/ IPV #2	/ / OPV #3 / / OPV #4 / / M D Y
	#2// #3// #4//
HEALTH CARE PROVIDER	
Name	Signature
Address	Phone ()
END	of SAMPLE FORM
If reproduced for use by a college or university h	nealth center, please insert your health center's contact information. ould not be returned to ACHA.

APPENDIX B: Recommendations for Immunizations and TB Testing for Health Science Students

OVERVIEW

Influenza: 1 dose of inactivated Influenza vaccine yearly.

Hepatitis B: a primary series **AND** documented <u>quantitative</u> hepatitis B surface antibody serologic test consistent with immunity (test should be done after completion of the appropriate vaccines).

Measles/Mumps/Rubella (MMR): 2 doses of MMR vaccine at least 28 days apart after 12 months of age **OR** 2 doses of measles **and** 2 doses of Mumps at least 28 days apart after 12 months of age **OR** laboratory proof of immunity to measles/mumps/rubella.

Tetanus/Diphtheria/Pertussis: In addition to primary series, all healthcare personnel (HCP) should receive 1 dose of Tdap and have documentation of a Td or Tdap within the past 10 years.

Tuberculosis Testing: The CDC recommends initial baseline testing with a TB screening test. For low risk students, the TB blood test is preferred. If initial screening test is negative, subsequent screening should be done with the same type of test utilized at last screening or by risk assessment. *Note: The Covid-19 vaccine should not be delayed because of testing for TB. See CDC's Dear Colleague letter on TB Tests and mRNA COVID-19 Vaccines, dated January 7, 2021 and https://www.cdc.gov/tb/topic/testing/healthcareworkers.htm, dated August 30, 2022.*

Varicella: 2 doses of varicella vaccine given at least 4 weeks apart OR laboratory proof of immunity. If no documentation of 2 doses and serologic test is negative or equivocal, complete a 2-dose varicella vaccine series. Do not repeat serologic test after series completion.

Note: Local requirements and clinical circumstances should be taken into consideration when using these guidelines to develop an institutional immunization policy for health science students.

DETAILED GUIDANCE

Hepatitis B

Students should have a primary hepatitis B series *and* a positive ($\geq 10 \text{ mIU/mL}$) serological <u>quantitative</u> hepatitis B surface antibody serologic test (anti-HBs or HBsAb). The test is recommended to be done 1–2 months after completion of a primary series or after a booster dose. If the test result is still not consistent with immunity after the booster dose, completion of the second series should be done and a test repeated 1-2 months after the final dose. A positive serologic test without documentation of the primary series is not sufficient.

For students with remote history of documented vaccine series completion without serologic test:

- If the student has received 2 complete series of hepatitis B vaccine and does not have a positive anti-HBs test result, they
 are considered a "non-responder" and must be evaluated by student health personnel for further evaluation and
 recommendations.
- HCP who are non-responders should be considered susceptible to hepatitis B infection and should be counseled about precautions to prevent HBV infection and the need to receive hepatitis B Immunoglobulin upon exposure to hepatitis B surface antigen positive (HBsAg) blood or fluids or blood or fluids with unknown HBsAg status. Non-responders should also be tested for HBsAg to evaluate for chronic hepatitis B infection. HCP who are chronic hepatitis B carriers should be counseled as to local and state guidelines for the safe provision of health care.

Influenza

It is strongly recommended that all healthcare personnel receive the influenza vaccine yearly.

Measles/Mumps/Rubella (MMR)

Students must meet any of the following 3 options to document proof of immunity to measles, mumps, and rubella (MMR):

- 2 doses of MMR vaccine at least 28 days apart after 12 months of age.
- 2 doses of measles vaccine and 2 doses of mumps vaccine at least 28 days apart after 12 months of age and 1 dose of rubella vaccine after 12 months of age
- Laboratory proof of immunity to measles, mumps and rubella. If serologic test result is negative or equivocal, the student will receive the MMR series with at least 28 days between each dose. No test is required after the MMR vaccine series.

Tetanus/Diphtheria/Pertussis

Students must have had 1 dose of tetanus/diphtheria/pertussis vaccine (Tdap, brand name Adacel or Boostrix). If the student does not have documentation of receiving a Tdap vaccine or is unsure if they have received it, a Tdap vaccine should be administered as soon as feasible without regard to the interval since the previous dose of Td. A Td booster or a Tdap is required within 10 years prior to matriculation.

Tuberculosis Screening

Upon matriculation, health science students should undergo baseline testing for tuberculosis with a blood test (Interferon Gamma Release Assay [IGRA]) or a 2-step Tuberculin Skin Test. *Note: See CDC's Dear Colleague letter on TB Tests and mRNA COVID-19 Vaccines, dated January 7, 2021.* Tests for TB infection aid in the diagnosis of M. tuberculosis infection; neither can differentiate latent tuberculosis infection (LTBI) from tuberculosis disease.

IGRA: Two IGRAs are currently endorsed by CDC for initial screening and surveillance of HCP, Quantiferon-Gold and T-Spot TB.

Tuberculin Skin Test (TST) – 2-Step:

Initial repeat testing is recommended for persons with a negative TST who are to undergo periodic TST screening and who have not been tested with tuberculin recently (within 1 year). This is intended to avoid "booster phenomenon" a misclassification of a subsequently reactive TST after initial testing as a TST conversion indicating recent infection.

- Individuals who have received the BCG vaccine should have their results interpreted according to standard criteria.
- 2-Step TST is performed by intradermal injection of PPD (purified protein derivative) with the student returning in 48-72 hours to record induration and interpreted according to risk factors. If negative, a second TST is placed on the opposite forearm 7-21 days after initial negative results and the results are interpreted in the standard fashion.
- If the repeat TST is positive, this is a true positive result and the student should be evaluated for latent or active TB.

Serial Testing: Utilize same testing methodology, TST or IGRA. Utilize same brand of IGRA for serial testing.

Varicella

Students must have either 1 of the following 2 options to demonstrate immunity to varicella:

- 1. 2 documented varicella vaccines that were given at least 4 weeks apart.
- 2. Laboratory proof of immunity to varicella. If the varicella serologic test is negative or equivocal, the student will receive the varicella series with the doses at least 4 weeks apart. **No test is required after the varicella vaccine series**.

An affidavit or documentation of the student having had varicella disease (i.e., chicken pox or shingles) is not acceptable proof of immunity.

APPENDIX C: Health Science Initial Immunization Record

Student Name:	ID	#:		
Mobile Ph#:	<u>En</u>	nail:		
		s; one of which must b day/year (#3) mo./d	•	and one of which must
DTP, DTaP or Td				
Tdap booster **Must have one documented				
Measles/Mumps/Rubella – 2 doses of MMR at Mumps at least 28 days apart after 12 months of a (blood test) to measles/mumps/rubella. If test result test is required after series repeat.	ge and 1 dose of Ru	bella after 12 months	of age OR laborat	ory proof of immunity
MMR – 2 required on or after 1st birthday				
	OR			
Measles – 2 required on or after first birthday				
Mumps – 2 required on or after first birthday				
Rubella – 1 required on or after first birthday				
	OR			
MMR Test *must attach laboratory results	Date of test	Result	-	
Varicella – 2 doses of Varicella at least 4 weeks a or equivocal, repeat Varicella series with doses at least 4 weeks a	· · · · · · · · · · · · · · · · · · ·			test result is negative
	east 4 weeks apart. N	o test is required afte		test result is negative
or equivocal, repeat Varicella series with doses at le	east 4 weeks apart. N	o test is required afte		test result is negative
or equivocal, repeat Varicella series with doses at le	east 4 weeks apart. N (#1) mo./day/year	o test is required afte		test result is negative
or equivocal, repeat Varicella series with doses at le Varicella – 2 doses	OR Date of test Description: Date of test Date of t	Result O mIU/mL) serological completed in the remove and re-test at least complete the series ive, the student should series can receive a	I <u>quantitative</u> hepation to past, and if the standard so per the standard so all does considered and	tis B surface antibody serologic test checked accine. If the second schedule. A final test a non-responder and
Varicella — 2 doses Varicella Test *must attach laboratory results Hepatitis B — a primary series of hepatitis B vaccintest (HBsAb) 1-2 months after the date of the last valupon matriculation is negative, student will get 1 hetest is negative, student will get the additional Hepshould be done 1-2 months after the final vaccine evaluated and counseled appropriately. Those students recently vaccinated with a negative after the final dose. Non-responders should be countered.	OR Date of test Description: Date of test Date of t	Result O mIU/mL) serological completed in the remove and re-test at least complete the series ive, the student should series can receive a	I <u>quantitative</u> hepation to past, and if the standard so per the standard so all does considered and	tis B surface antibody serologic test checked accine. If the second schedule. A final test a non-responder and
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Tuberculin Screening – IGRA Blood Test (preferred) OR a 2-step TB skin test (TST) placed within the past 12 months.						
2 Step TST – placed within the past 12 months, must have	1 st TST Place date	1 st TST Read Date and result	2 nd TST Place Date	2 nd TST Read date and result		
been performed in the United States. The 2nd TST must be placed at least 1 week AFTER the 1st TST read date.						
	OR		l .	ı		
IGRA TB Screening – specific test used should be	Date of IGRA	Result				
approved for us in the US.						
T-spot*						
Quantiferon Gold*						
*Must attach laboratory results						
Signature and Credentials of Health Care Provider		Da	ate			

