



Information Sheet Immunization and TB Requirements For Health Career Programs

Why is immunization important for students in health career programs?

Health care providers are at risk of exposure to, and possible transmission of, preventable diseases. Risk of communicable diseases in the workplace is due to health care providers contact with infected patients or infective material from patients. Maintenance of immunity is therefore an essential part of prevention and infection control.

Vaccinating health care providers helps protect their health and prevent disease transmission between patients and providers and among providers and their family and friends outside the workplace.

What routine immunizations and screenings are required?

The vaccines required are Tetanus, Diphtheria, and Pertussis (Tdap), Measles (Rubeola), Mumps and Rubella (MMR), Varicella, and Influenza. Positive Rubella Titer is required in addition to MMR vaccination. Students must also be tested for TB on an annual basis.

Tetanus, Diphtheria and Pertussis (required)

Diphtheria is a serious communicable disease, causing death in 5-10 percent of cases with the highest rates among the very young and the elderly. Diphtheria disease is most common and most severe in non-immunized or partially immunized individuals. Protection from vaccine decreases over time unless periodic boosters are given.

Tetanus is an acute and often fatal disease. While rare, cases have been reported that are associated with injection drug use, animal bites and wounds contaminated with dirt, feces or saliva.

Pertussis (whooping cough) is very contagious and can cause serious illness—especially in infants too young to be fully vaccinated. Pertussis vaccines are recommended for children, teens, and adults, including pregnant women

Immunization against tetanus, diphtheria, and pertussis is recommended for all adults in the USA and **required for students in health career programs** at HACC. All students must provide proof of date of Tdap after the age of 18 and must have a Td booster if Tdap date is >8 years old.

Varicella (required)

Varicella (chickenpox) infection tends to be more severe in adults. Students **MUST** have proof of two Varicella vaccinations, **or** Varicella IgG antibody titer showing evidence of immunity to be considered protected against measles infection.

Measles, Mumps, Rubella (required)

Measles (Rubeola) is a highly contagious disease that can be more severe in infants, children and adults who have weakened immune systems. Students **MUST** have proof of two measles vaccinations, **or** Rubeola IgG antibody titer showing evidence of immunity to be considered protected against measles infection.

Mumps is generally a mild disease; however, complications like encephalitis or inflammation of the brain are more common in adults. Students **MUST** have proof of two doses of live mumps-containing vaccine, or mumps IgG antibody titer showing evidence of immunity.

Rubella infection in adults may cause swelling and pain in the joints. Infections in the first three months of pregnancy have an 85 per cent risk of causing severe damage to a developing baby. Rubella outbreaks in health care facilities are of particular concern due to the potential spread to pregnant health care providers and patients. According to the CDC 10% to 15% of young adults are susceptible to rubella infection.

Rubella IgG antibody titer is required for all students. Individuals are considered protected against rubella infection if they have a positive titer. Those with a negative or equivocal titer should have one dose of live rubella-containing vaccine. A rubella IgG antibody titer must be drawn 4 to 8 weeks following the vaccine to prove immunity via a positive result.

Influenza (required during October-March)

Influenza vaccination of health care providers has been shown to help reduce the illness and death of patients under their care in long-term settings and to reduce worker illness during the influenza season.

All health care providers are at risk of getting and passing on the influenza virus to their patients, families and friends. It is important to prevent disease transmission to persons at high risk of influenza-related complications, such as those with cardiac or pulmonary disorders, weakened immune systems, other chronic medical conditions, and the elderly.

All HACC clinical students must have the seasonal vaccine to participate in clinical classes from October through March. Students must provide the manufacturer, lot number, and expiration date of vaccine.

Tuberculosis Screening (required yearly)

Health care workers are at risk of contracting Tuberculosis (TB). Cases in health care workers constituted 3% of all TB cases. TB is a potentially severe contagious disease that is spread from person to person through the air. People with TB infection do not feel sick and do not have any symptoms. However, they may develop TB disease at some time in the future.

One of three testing processes is required:

Two-step Tuberculin Testing (PPD). The 2-step testing procedure is required to improve test reliability. If the reaction to the first test is classified as negative, a second test should be done 10 to 21 days later. In some people who are infected with M. tuberculosis, their reaction to the tuberculin test may wane over the years. When these people are skin tested many years after infection, they may have a negative reaction. However, the first skin test may stimulate (boost) their ability to react to tuberculin, causing a positive reaction to subsequent test.

Students who have a documented 2-step PPD need to submit evidence of this testing and continuous yearly testing. If a lapse occurred in the yearly PPD, the student will need to repeat the 2-step.

Students who have a positive PPD are required to obtain an annual chest x-ray and provide details of any prescribed medication(s).

OR

Interferon-TB Gold Testing. This blood test detects active and latent tuberculosis. This test should be performed for foreign born persons from high risk countries vaccinated against TB with the BCG-Vaccine. It may also be used in place of the 2-step PPD testing.

Students who have a positive blood test are required to obtain an annual chest x-ray and provide details of any prescribed medication(s). Students who have an indeterminate blood test result are required to have 2-step PPD testing. Students who have a positive PPD are required to obtain an annual chest x-ray and provide details of any prescribed medication(s).

OR

T-Spot TB Testing. This blood test detects active and latent tuberculosis. This test should be performed for foreign born persons from high risk countries vaccinated against TB with the BCG-Vaccine. It may also be used in place of the 2-step PPD testing.

Students who have a positive blood test are required to obtain an annual chest x-ray and provide details of any prescribed medication(s). Students who have an indeterminate or borderline blood test result are required to repeat the testing. Students who have a positive PPD are required to obtain an annual chest x-ray and provide details of any prescribed medication(s).

What routine immunizations and screenings are recommended?

Hepatitis B vaccine is recommended. If student does not provide proof of immunity by laboratory testing, a "Student Non-Immune Form" MUST be signed and on file in the program director's office.

Hepatitis B Virus (recommended)

Hepatitis B vaccine is encouraged as students may be exposed to blood or body fluids through needle stick or other similar injuries, bites, or non-intact skin. The risk of transmission of hepatitis B virus to a health care provider from a highly infectious source, such as a needle stick injury, has been reported to be 19-40 percent.

Individuals are considered immune if they have completed a series of hepatitis B vaccine and one documented lab test (positive Hep B surface antibody titer) which shows they have developed adequate immunity to hepatitis B virus. Post vaccination testing should be done 1 to 2 months after the 3rd dose of the vaccine. ***Long term immunity has only been shown for person attaining adequate anti-HBs results \geq 10mIU/ml after a 3 dose vaccination series.***

Students who have no documentation showing they received Hepatitis B vaccine are encouraged to receive the 3 dose series and post vaccination testing. There is no harm in receiving extra doses of vaccine.

- Students who choose not to receive the Hepatitis B vaccination, a “Student Non-Immune Form” is required.
- Students in the process of receiving the vaccination series without a positive anti-HBs result, a “Student Non-Immune Form” is required.
- Students who completed the series of hepatitis B vaccine in the past but were **NOT tested for immunity**: Documentation of a Hepatitis B surface antibody titer (anti-HBs ≥ 10 mIU/mL) or signed “Student Non-Immune Form” is required.
- Students who completed 2 series (total of 6 shots) and have not seroconverted, a “Student Non-Immune Form” is required.

Persons who do not develop immunity (non-responders) to an initial vaccine series should be given a second series of vaccine with post vaccination testing to check immunity. Persons who do not respond after the second vaccination series should be tested for Hepatitis B surface antigens (HBsAg) to determine if they have Hepatitis B virus infection. If positive they should receive appropriate treatment and counseling from their healthcare provider. Those who test negative for HBsAg should be considered susceptible to Hepatitis B viral infections and should be counseled appropriately by their healthcare provider.

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References

"Ask the Experts" Questions Relating to Health Care Workers, Immunization Action Coalition. July 30, 2006. www.immunize.org/hcw/ate.htm

"College/University Immunization Recommendations," September 2006. PA Department of Health: Bureau of Communicable Diseases, Division of Immunizations.

"Healthcare Worker Vaccination Recommendations," Immunization Action Coalition, adapted from Michigan Department of Community Health, www.immunize.org/catg.d/p2017.pdf

"Hepatitis B and the healthcare worker: CDC answers frequently asked questions about how to protect healthcare workers," Immunization Action Coalition, August, 2006. <http://www.immunize.org/catg.d/p2109.pdf>

"Influenza Vaccination Information for Health Care Workers"
<http://www.cdc.gov/flu/healthcareworkers.htm>

"Recommendations for Institutional Prematriculation Immunizations," Advisory Committee on Immunization Practices ACHA Guidelines, January 2006. Centers for Disease Control.

"Recommended Immunization Schedule for Persons Aged 0 through 18 Years and Adults Aged 19 Years and Older-United States, 2013"
Early Release 2 **MMWR / January 28, 2013 / Vol. 62 ...** Pages 1-17.
<http://www.cdc.gov/vaccines/schedules/downloads/child/mmwr-0-18yrs-catchup-schedule.pdf>

"Updated Recommendations of the Advisory Committee on Immunization Practices (ACIP) for the Control and Elimination of Mumps". CDC MMWR June 9, 2006. Vol 55. No. 22. <http://www.cdc.gov/mmwr/PDF/wk/mm5522.pdf>
U.S. Department of Labor, OSHA Regulations (Standards - 29 CFR) Hepatitis B Vaccine Declination (Mandatory) - 1910.1030 App A.
http://www.osha-ov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10052

"Recommended Adult Immunization Schedule, by Vaccine and Age Group, 2014"
<http://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html>