CUSOM Student Health Immunization Requirements

Regulatory and legislative authorities require that students demonstrate immunization, immunity and/or protection from multiple contagious diseases before being allowed to participate in clinical experiences. CUSOM requires that students meet all immunization requirements prior to matriculation and must maintain compliance with these requirements through graduation. Descriptions of CUSOM immunization requirements specifically addressing Varicella, Measles, Mumps, Rubella, Hepatitis B, Tuberculosis, Influenza and Pertussis are presented below.

Required laboratory evaluations and immunizations are subject to review and modification based on recommendations from the Centers for Disease Control (CDC), the Advisory Committee on Immunization Practices (ACIP), the United States Prevention Task Force (USPTF) and other public health agencies. Students will be notified of any changes and will be required to comply with any mandated changes upon receipt of notice from CUSOM.

Important Notes Regarding Vaccination Requirements:

1. Clinical experiences are part of the basic curriculum to obtain a degree of Osteopathic Medicine and therefore CUSOM does not waive immunization or student health requirements for religious or personal preferences.

2. Students will not be allowed to participate in any patient care activities, including but not limited to early clinical experiences, health outreach events, international mission trips and clinical rotations, until all immunization requirements have been met.

3. Inability to participate in clinical experiences due to noncompliance with CUSOM immunization policies may result in unexcused absences leading to failure of a course, academic probation, promotion board hearing, delay in graduation or even dismissal from the program.

CUSOM immunization requirements are described in detail below. All incoming and current students must log all immunization requirements on the standard AAMC immunization form (attached and available at https://www.aamc.org/download/440110/data/immunizationform.pdf). This form must be completed in its entirety and signed by a physician or qualified health care provider verifying the required information.

In addition, students are required to submit supporting documentation such as immunization records and titers.

Revised and approved by Campbell University, Incorporated Counsel April 1, 2016
1. **Diphtheria, Pertussis and Tetanus**

   a. All students must submit documentation (physician signature or vaccination record) of immunization with a *Tdap booster (Boostrix or Adacel)* since the year 2005.

   i. *Tdap* is the one-time booster containing the acellular pertussis vaccine and is available only in the **Boostrix or Adacel** vaccines. This vaccine was released in 2005 and all students must demonstrate proof of immunization with this vaccine.

   ii. Following the Tdap booster, a Td routine booster is required every 10

   b. This information should be entered into the “Tetanus-diphtheria-pertussis” section on the bottom of page 1 of the AAMC form.

2. **Measles, Mumps, Rubella (MMR)**

   a. Students must provide dates and verification (vaccination record) of 2 MMR vaccinations, occurring at least 28 days apart.

   i. If the student is able to provide an immunization record or physician signature verifying the dates of these 2 vaccinations, **no titer will be required**.

   b. Students unable to provide immunization records or physician signature verifying completion of the MMR series have 2 options:

   i. Repeat the MMR series of 2 vaccinations at least 28 days apart and provide documentation verifying completion of the series.

   ii. Obtain titers for measles, mumps and rubella

      1. If a student elects to obtain titers and they show evidence of non-immunity to any of the 3 components of the vaccine (measles, mumps or rubella), they will be required to repeat the MMR series of 2 vaccinations, at least 28 days apart. The exception is if there is only non-immunity to Rubella, only one MMR vaccination will be required.

   c. This information should be entered into the “Tetanus-diphtheria-pertussis” section on the top of page 1 of the AAMC form.
3. **Varicella**

   a. Students must provide evidence of immunity to Varicella through:

      i. Laboratory evidence of immunity (antibody titers)

   b. This information should be entered into the “Varicella” section on the bottom of page 2 of the AAMC form.

4. **Hepatitis B Immunization**

   a. Students must provide dates and verification (vaccination record) of completing a Hepatitis B vaccination series consisting of three (3) hepatitis B injections. Injections are generally given at 0, 1 and 6 months which means injection two would be given 1 month following injection one and injection three would be given 6 months following injection one. A **quantitative antibody titer** is then performed 4-8 weeks following the 3rd injection. Qualitative titers cannot be accepted.

   b. This information should be entered into the “Hepatitis B Vaccination” section of the AAMC form at the middle of page 1.

   c. While students may not have all 3 vaccines complete at the time of matriculation, **all students must have at least received their first injection and be in the process of completing the subsequent two injections and titer following the above schedule**.

   d. In addition, all students must provide verification of quantitative antibody titers demonstrating immunity to hepatitis B. To ensure accuracy, it is recommended that antibody titer testing be performed 4-8 weeks following the 3rd and final injection in the series.

   e. **Students who do not demonstrate immunity through adequate titer levels**

      i. Students who have received the initial series of Hepatitis B vaccine and do not seroconvert to demonstrate immunity will be **required to repeat the complete series of three immunizations**.

      ii. Following completion of the repeat series of 3 Hepatitis B vaccinations, students **must obtain another quantitative titer** to confirm immunity. To ensure accuracy, it is recommended that antibody titer testing be performed 4-8 weeks following the 3rd and final injection in the series.
iii. Students who still do not demonstrate immunity following the second Hepatitis B immunization series will be considered a vaccine non-responder and at risk for acquiring HBV.

iv. **Students who do not attain immunity following completion of a second Hepatitis B immunization series will also be required to obtain testing for active hepatitis B infection.** Please see the information below under Hepatitis testing for further details.

f. If testing for hepatitis B infection is negative, the student will be considered non-immune to Hepatitis B and will meet with the Associate Dean for Clinical Affairs. Current recommendations and additional education on universal precautions, risk avoidance and treatment options if exposed to HBV will be provided to the student. The student will sign documentation of informed consent to continue their education, acknowledging the medical risk and receipt of this information, but they will not be required to continue additional HBV immunizations. Please see the CUSOM Hepatitis B Non-Immunity Policy for further information.

5. **Hepatitis Testing**

   a. In addition, per CDC guidelines, **any student who does not obtain protective immunity to Hepatitis B after a completion of 2 vaccination series (6 total immunizations) will also be required to obtain serologic testing for Hepatitis B infection as described below.** Students who attain protective immunity to Hepatitis B after either the first vaccination series of 3 immunizations or second vaccination series of 3 immunizations (if
needed), are considered immune, protected and free of Hepatitis B and therefore do not require testing for the disease.

b. **Hepatitis B Testing**

i. Following CDC recommendations, **testing for Hepatitis B is only required for students who fail to obtain protective immunity to Hepatitis B immunization.** Immunization involves a series of 3 vaccinations given at 0, 1 and 6 months, followed by a **quantitative titer** to confirm immunity drawn 4-8 weeks following the final vaccination in the series. **Qualitative titers cannot be accepted.** Students who do not demonstrate immunity following the initial series of 3 vaccinations will be required to be revaccinated with the complete series of 3 vaccines, again given at 0, 1 and 6 months. 4-8 weeks following the final vaccination in this second series, another quantitative titer to evaluate for immunity to Hepatitis B will be performed and the result reported to CUSOM. **If this second titer also demonstrates non-immunity, the student will then be required to be tested for Hepatitis B infection.**

ii. **Testing for Hepatitis B is accomplished through evaluation of serum HBsAg (Hepatitis B Surface Antigen) and anti-HBc (Total Hepatitis B core antibody).**

1. Hepatitis B surface antigen (HBsAg) is a protein on the surface of HBV; it can be detected in high levels in serum during acute or chronic HBV infection. The presence of HBsAg indicates that the person is infectious. The body normally produces antibodies to HBsAg as part of the normal immune response to infection. HBsAg is the antigen used to make Hepatitis B vaccine.

2. Total Hepatitis B core antibody (anti-HBc) appears at the onset of symptoms in acute Hepatitis B and persists for life. The presence of anti-HBc indicates previous or ongoing infection with HBV in an undefined time frame.

iii. Students who are required to obtain Hepatitis B testing must provide results of both HBsAg and anti-HBc to CUSOM along with the confirmatory lab reports.

iv. Students who show **evidence of Chronic Active Hepatitis B, will also be required to obtain and report a Hepatitis B Viral Load.**

v. Results of Hepatitis B testing will not affect a student’s matriculation status or offer of acceptance but will provide valuable information to ensure proper patient care safeguards and adherence to CDC recommendations for the management of Hepatitis B virus – infected health care providers and students are followed. In addition, testing prior to matriculation provides a baseline.
status in regards to disease presence in the event that a student has an exposure incident during subsequent clinical activities.

6. **Tuberculosis (TB) Testing**

Baseline TB screening is required for all medical students upon matriculation to CUSOM and annually thereafter. There are two acceptable methods for TB screening and all students must provide documentation of the results from ONE of the two methods:

i. **A two-step tuberculin skin test (TST)**

ii. **An Interferon-Gamma Release Assay (IGRAs) blood test.**

If the initial TB screening is done with the Tuberculin Skin Test (TST), the student must have the **Two-Step Method at baseline** (described below) followed by a single-step annually. If the blood test, called Interferon-Gamma Release Assays (IGRAs) is used at initial screening for baseline measures, a **two-step process is not required**. Students should speak with their physician to determine which test is most appropriate for them.

   a. **Option 1: The Mantoux tuberculin skin test (TST)**

      i. The Mantoux TST is the standard method of determining whether a person is infected with *Mycobacterium tuberculosis*. The TST is performed by injecting 0.1 ml of tuberculin purified protein derivative (PPD) into the inner surface of the forearm. The skin test reaction should be read between 48 and 72 hours after administration. If the test is not read within 72 hours, the student will need to be rescheduled for another skin test.

      ii. **Two-Step Method**: If TST is utilized as the TB screening test, the “two-step method” is required. If the first TST result in the two-step baseline testing is positive, the person is considered infected and should be evaluated and treated accordingly. **If the first test result is negative, the TST should be repeated in 1–3 weeks.** If the second test result is positive, the person is considered infected and should be evaluated and treated accordingly; if both steps are negative, consider the person uninfected and classify the TST as negative at baseline testing.

         1. **Note**: Two-step Method is only used at the initial screening for a baseline measure – annual testing thereafter only requires a single PPD.

         2. **When IGRAs are used for testing, there is no need for a second test.**

         3. Summary of 2 step TST testing – table below
### Revised and approved by Campbell University, Incorporated Counsel April 1, 2016

<table>
<thead>
<tr>
<th>1st TST Test</th>
<th>Negative</th>
<th>Repeat TST in 1-3 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>Considered positive for infection</td>
<td></td>
</tr>
</tbody>
</table>
| 2nd TST Test | Negative | Person probably does not have an infection  
              | Single PPD required annually moving forward |
| Positive     | Considered positive for infection |

b. **Option 2: Interferon-Gamma Release Assays (IGRAs) blood test**

i. TB blood tests (also called interferon-gamma release assays or IGRAs) measure how the immune system reacts to the bacteria that cause TB. Two IGRAs are approved by the U.S. Food and Drug Administration (FDA) and are available in the United States:
   1. QuantiFERON®–TB Gold In-Tube test (QFT-GIT)
   2. T-SPOT®.TB test (T-Spot)

ii. IGRAs are the **preferred method** of TB infection testing for the following:
   1. **People who have received bacille Calmette–Guérin (BCG).** BCG is a vaccine for TB disease.
   2. People who have a difficult time returning for a second appointment to look for a reaction to the TST.

iii. Results of IGRA’s
   1. **Positive IGRA:** This means that the person has been infected with TB bacteria. Additional tests are needed to determine if the person has latent TB infection or TB disease.
   2. **Negative IGRA:** This means that the person’s blood did not react to the test and that latent TB infection or TB disease is not likely.

c. **Special Situations – Prior BCG vaccination and Pregnancy**

i. **Testing for TB in BCG-Vaccinated Persons:**
   1. Many people born outside of the United States have been BCG-vaccinated. **People who have had a previous BCG vaccine may receive a TB skin test.** In some people, BCG may cause a positive skin test when they are not infected with TB bacteria. If a TB skin test is positive,
additional tests are needed. IGRAs, unlike the TB skin tests, are not affected by prior BCG vaccination and are not expected to give a false-positive result in people who have received BCG. **Students who have had a previous BCG vaccine must still be tested for TB with the TST or IGRAs.**

2. Most people with previous BCG vaccine should consider an IGRA rather than a TST test; however that decision should be made in consultation with their health care provider.

**ii. Pregnancy**

1. Pregnancy is not a contraindication for TB skin testing. **Pregnant and students who are nursing should be included in the same baseline and serial TB screening as all other health care workers.** The TB blood test is currently not used in pregnant women.

**d. Students with Positive TST or IGRA Testing**

i. **Students with WRITTEN documentation of previous positive TST or TB Blood Test**

1. If the date and result of the previous test are documented, these students do **not** need a repeat TST or TB blood test. If they have written documentation of the results of a chest radiograph indicating no active TB disease that is dated after the date of the positive TST or TB blood result they **do not need another chest x-ray** unless symptoms or signs of TB disease develop or a clinician recommends a repeat chest radiograph. **These students do not require annual TST or IGRA testing but must complete the TB Assessment Form annually, have it signed by a physician and return it to the Clinical Affairs Office.**

2. If the student does not have written documentation of a chest radiograph, they must obtain a chest radiograph prior to matriculation to exclude a diagnosis of infectious TB. The results/interpretation of this chest x-ray must be submitted to the office of clinical affairs.

ii. **Medical Students with a Newly Identified positive TST or TB blood result:**

1. These individuals should be assessed by their physician for current TB symptoms and risk factors for progression to active TB disease.

2. In addition, they **must obtain a chest radiograph to exclude a diagnosis of active infectious TB disease and submit this documentation to the Office of Clinical Affairs.**
e. **Medical Students with suspected or confirmed infectious TB:**

   i. If infectious TB is confirmed the student must be excluded from the clinical setting and will only be able to return when all the following criteria have been met:

   1. Three consecutive sputum samples collected in 8-24 hour intervals are negative, with at least one sample from an early morning specimen
   2. The person has responded to anti-TB treatment that will likely be effective (based on susceptibility results)
   3. The person is determined to be noninfectious by a physician knowledgeable and experienced in managing active TB disease

f. **All required information regarding TB testing and treatment must be entered in the “Tuberculin Screening History” section on page 2 of the AAMC form.**

7. **Influenza**

   a. All students are required to provide the dates and verification (physician signature or vaccination records) of annual influenza vaccination.

   b. Students will be required to resubmit verification annually and will not be allowed to participate in patient care activities without proof of vaccination.

---

**Optional Vaccines and Testing**

**HIV Testing**

*Although not required, CUSOM encourages all students to obtain HIV testing prior to matriculation.* Testing prior to matriculation provides students with their baseline status in regards to the presence of HIV infection which will be valuable in the event that a student has an exposure incident during...
subsequent clinical activities. **Students are not required to report the results of their testing to CUSOM.**

**Hepatitis C Testing**

In order to protect CUSOM students and patients, it is recommended that students obtain Hepatitis C testing and provide test results to CUSOM prior to matriculation.

**Results of testing will not affect a student’s matriculation status or offer of acceptance** but will provide valuable information to ensure proper patient care safeguards and adherence to CDC recommendations for the management of Hepatitis C virus – infected health care providers and students are followed. In addition, testing prior to matriculation provides a baseline status in regards to disease presence in the event that a student has an exposure incident during subsequent clinical activities.

Testing for Hepatitis C may be accomplished by several methods with the most common method utilized for initial screening being the measurement of **anti-HCV**, which is a test to detect the presence of antibodies to the Hepatitis C virus.

If anti-HCV tests are positive, students will be required to obtain additional confirmatory testing and medical follow up in accordance to CDC guidelines [http://www.cdc.gov/hepatitis/HCV/HCVfaq.htm#section3](http://www.cdc.gov/hepatitis/HCV/HCVfaq.htm#section3)

**Optional Vaccines**

The following vaccines are considered optional, however CUSOM strongly advises all students to discuss the appropriateness of each of the following vaccinations with their primary physician, taking into account their personal medical history, risk factors for contracting these diseases and potential for international travel.

Revised and approved by Campbell University, Incorporated Counsel April 1, 2016
1. Polio  
2. Hepatitis A  
3. Meningococcal Disease  
4. Yellow Fever  
5. Typhoid Fever

Students who have obtained the above optional vaccinations should document the dates and provide verification (physician signature or vaccination records) and include them in the “Additional Information” section on page 3 of the AAMC form.