



**NYU Langone Health**

IMMUNIZATION OF MEDICAL STUDENTS		
EFFECTIVE DATE: March 2018	REVIEWED DATE:	REVISED DATE:

**I. POLICY:** Vaccination requirements for the medical students are established by the student health center under the recommendations of the Center for Disease Control, and in coordination with the regulations of the hospital and the New York State Department of Health.

Each incoming student is asked to provide documentation of the following prior to arrival:

- Two MMR vaccines - given after twelve months of age and at least one month apart
- Primary Td series spaced 0, 1-2 m, 6-12 m
- Tdap after the age of 11
- Td Vaccine within the last ten years, or Tdap if appropriate
- Meningococcal vaccine after the age of 16
- Three hepatitis B vaccines spaced at 0, 1 and 6 months
- TB screening with PPD or IGRA test
- Blood titers for rubeola, rubella, mumps, varicella, and hepatitis B showing serological proof of immunity.

**A. Measles, Mumps, Rubella**

Students without documented immunity by blood titer to rubeola, rubella, or mumps are considered for a booster vaccination with a MMR vaccine.

However, we recognize that 2 documented doses of MMR vaccine given on or after 1 year of age and at least 28 days apart is presumptive evidence of immunity, as per ACIP guidelines.

If needed, a tuberculin skin test may be done on the same day or else delayed by 4-6 weeks as the vaccine may suppress a skin test response. If other live virus vaccines are needed, they may be given on the same day. If not, they are given at least 28 days later.

Vaccine Administration:

The MMR vaccine is in powdered form and needs to be reconstituted with "Diluent for Live Vaccines." The vaccine is refrigerated and stored at 3-7 degrees centigrade and protected from light at all times. The diluent can be stored at room temperature. The vaccine is reconstituted just before using. The vaccine is then given subcutaneously in the upper arm. A blood titer is



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obtained 12 weeks after the last injection to assess for adequate immune response.

Contraindications to the MMR Vaccine

- Immunosuppression
- Any febrile infection or severe illness
- Pregnancy
- Active tuberculosis
- Previous anaphylaxis to this vaccine or severe allergy to neomycin

Precautions

- If a blood or plasma transfusion or administration of immune globulin was done within the past eleven months, refer to ACIP guidelines for wait time before vaccinating
- History of thrombocytopenia or thrombocytopenic purpura
- Moderate or severe illness with or without fever
- Pregnancy should be avoided for at least one month after vaccination

**B. Varicella**

Students without documented immunity by blood titer to varicella are given two doses of Varivax vaccine. The second dose is given at least 28 days after the first. If other live virus vaccines are needed, they may be given on the same day. If not, they are given at least 28 days later.

Vaccine Administration:

Two vaccines are given at least 28 days apart. The injection is given subcutaneously in the upper arm. Varivax, the varicella vaccine, is kept frozen until needed. It is provided in 0.5 cc vials and must be reconstituted with the designated diluent. The vaccine is given immediately after reconstitution. A varicella titer is obtained 12 weeks after the last injection to assess for adequate immune response.

Contradictions:

- Previous anaphylaxis to this vaccine or any of its components including neomycin or gelatin



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- Immunosuppression
- Malignancy affecting blood, bone marrow or lymphatic system
- Any febrile infection or severe illness
- Pregnancy

Precautions:

- If a blood or plasma transfusion or administration of immune globulin was done within the past eleven months, refer to ACIP guidelines for wait time before vaccinating.
- After administration of Varivax, immune globulin is not given for two months.
- Close contact with susceptible high risk individuals such as newborns, pregnant women, and immunocompromised individuals should be avoided. Only individuals who developed a skin rash appear to be capable of transmitting the disease. The likelihood of transmission increases with the number of skin lesions.
- Pregnancy should be avoided for at least one month after vaccination.

Adverse Reactions:

- Rash occurs in 5% of the patients after the first dose with a peak period of 7-27 days
- After the second dose, less than 1 % of the patients develop a rash.
- Rash can occur at the site of injection or as a generalized rash.
- Fever
- Soreness or swelling at the injection site

**C. Hepatitis B**

Those students who have never been vaccinated receive a three-dose series over a six-month period at 0, 1, and 6 months upon arrival to NYU Long Island School of Medicine. Blood titers are done one month after the completion of the vaccine series. Students who have been vaccinated prior to admission to school but have negative anti-HBs receive 3 additional doses of Hepatitis B vaccine at 0, 1, and 6 months. A titer is checked one month after the last injection to assess



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for adequate immune response. Students who have been vaccinated prior to admission to school but have low titers (anti-HBs less than 20 mIU/mL) receive additional booster Hepatitis B vaccinations. Titers are checked one month after each booster vaccination.

Vaccine Administration:

Each 1 ml injection is given IM in the deltoid muscle. The vaccine is refrigerated and stored at 3-7 degrees centigrade.

Contraindications:

- Previous anaphylaxis to this vaccine or any of its components including yeast
- Moderate or severe illness

Adverse Reactions:

- Localized soreness or redness at the injection site
- Fatigue or malaise
- Low-grade fever

**D. Meningococcal Vaccine**

All students are required to have the conjugate vaccine, quadrivalent (MCV 4) Menactra or Menveo after the age of 16. High risk students are given a booster vaccination after five years.

Vaccine Administration:

The dose of 0.5 ml is given IM in the deltoid muscle. The vaccine is refrigerated and stored at 3-7 degrees centigrade

Contraindications:

- Previous anaphylaxis to this vaccine or any of its components
- Moderate or severe illness

Adverse Reactions:

- Local redness or soreness at the injection site



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- Fever in a small percentage of the recipients

**E. Tetanus, diphtheria, and pertussis (Td or Tdap) Vaccine**

Unvaccinated students complete the primary Td series (spaced at 0, 1-2 m, 6-12 m intervals) with a substitution of a one-time dose of Tdap for one of the doses in the series (preferably the first dose). One adult dose of Tdap must be documented. Pregnant women should receive Tdap during each pregnancy (preferred during 27 - 36 weeks gestation), regardless of the number of years since prior Td or Tdap vaccination. A Td booster is given every 10 years routinely. It is also given following injury when the last vaccination was 5 years earlier.

Vaccine Administration:

The dose of 0.5 ml is given IM in the deltoid muscle. The vaccine is refrigerated and stored at 3-7 degrees centigrade.

Contraindications:

- Previous anaphylaxis to this vaccine or any of its components
- For Tdap only: history of encephalopathy, seizures, or coma not attributable to an identifiable cause, within 7 days following DTP/DTaP, or Tdap.
- Moderate or severe illness
- Guillain-Barre syndrome within 6 weeks following previous dose of tetanus toxoid containing vaccine
- Unstable neurologic disease

Adverse Reactions:

- Local swelling, redness or soreness at the injection site
- Chills, fever, malaise, headache
- Nausea, vomiting, diarrhea, stomach ache (1 in 10 adults)

**F. Influenza**

Annual influenza vaccination is required for all students during flu season (September - April). Inactivated, quadrivalent and preservative-free vaccine



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is available at Student Health Center (SHC) free of charge. If students receive the vaccine outside of SHC, adequate documentation of vaccination must be submitted. Influenza vaccination is mandatory.

Vaccine Administration:

The dose of 0.5 ml is given IM in the deltoid muscle. The vaccine is refrigerated and stored at 3-7 degrees centigrade.

Contraindications:

- Previous anaphylaxis to this vaccine or any of its components
- History of Guillain-Barre syndrome
- Moderate or severe illness

Adverse Reactions:

- Local swelling, redness or soreness at the injection site
- Chills, fever, malaise, headache

**G. Tuberculosis Screening**

All medical students are required to submit documentation of TB screening by either PPD testing or Interferon-Gamma Release Assay (IGRA) blood test. Those submitting documentation of TB screening by PPD will have another PPD placed at SHC within the first 2 weeks of school. Thereafter, TB screening is done annually at SHC.

Policy/Procedure for PPD Placement

- Inject 0.1 ml of tuberculin purified protein derivative (PPD) into the sub dermal layer of the forearm. The injection should be made with a tuberculin syringe, with the needle bevel facing upward. When placed correctly, the injection should produce a pale elevation of skin (a wheal) 6 to 10 mm in diameter.
- The skin test reaction should be read between 48 and 72 hours after administration. A student who does not return within 72 hours will need another skin test.
- Previous vaccination with Bacillus Calmette-Guerin (BCG) is not a contraindication to PPD testing. Reactivity caused by BCG vaccination



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usually wanes within ten years. When unclear skin response, screen with IGRA test.

- The PPD skin reaction is measured in millimeters of induration (palpable, raised, hardened area of swelling). Erythema is not measured.
- An induration of 10 mm or greater at the PPD implantation site is considered a positive reaction.
- A tuberculin reaction of 5-9 mm will be considered positive based upon the student's immune status or history of exposure.

Positive TB Test

- All individuals with a positive PPD or IGRA test must undergo clinical and radiographic evaluation for evidence of active TB.

Treatment

- Asymptomatic individuals with a negative chest x-ray will be encouraged to complete a course of chemoprevention
- Liver function tests will be evaluated both prior to starting the medication and during the course of treatment
- A "Refusal of Treatment Form" must be signed by any student who refuses the recommended prophylactic treatment.
- Individuals with a positive chest x-ray and/or symptoms of active disease will be referred to Pulmonary Medicine for treatment.

Follow-up for latent TB infection

- Following a positive PPD or IGRA test, annual testing will no longer be done.
- Students must come to the SHC yearly to complete an annual symptom assessment form.
- A repeat chest x-ray will not be required unless symptoms suggest active disease, or a TB exposure occurs. A new chest x-ray should be obtained ten weeks after the exposure.

**II. PURPOSE:** This document summarizes the immunization policy and requirements for medical students.



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**III. SCOPE:** This policy applies to all NYU Long Island School of Medicine's students.

**IV. DEFINITIONS:** N/A

**V. POLICY AUTHOR(S)**

- Office of Students and Diversity

**VI. RELATED POLICIES:** N/A

**VII. PROCEDURE(S):** N/A

**VIII. REFERENCES** (LCME references, Functions and Structures of a Medical School March 2020)

12.7 Immunization Requirements and Monitoring

A medical school follows accepted guidelines in determining immunization requirements for its medical students and monitors students' compliance with those requirements.

**IX. TYPE OF POLICY** Curricular

**X. APPROVALS:** Faculty Council

**XI. POLICY MANAGEMENT**

Responsible Executive: Dean of the School of Medicine

Responsible Officer: Associate Dean of Students and Diversity

Responsible Office: Office of Students and Diversity