

Subject: Measles Prevention Protocol

The Measles Prevention Protocol outlines Employee Health Procedures to ensure immunity to Measles among health care personnel (HCP). Health care personnel are meant to include all volunteers, students, employees, and certain contract workers at UCONN HEALTH. Connecticut State Law mandates that all higher education students must have demonstrated immunity to measles. All medical, dental, and graduate students are covered under this Connecticut Law and for the purposes of this protocol are regarded as health care personnel. This policy has been reviewed by the Infection Control Committee Procedure:

DOCUMENTATION GUIDELINES

The Employee Health Service is responsible for documenting measles vaccination and/or immunity in order to protect the health of all students, healthcare workers, and patients. Appropriate documentation of immunity is required.

Evidence of immunity to measles for persons who work or study in health-care facilities includes any of the following:

- Written documentation of vaccination with 2 doses of live measles or MMR vaccine administered at least 28 days apart. The first dose of the measles vaccine must have been administered after the first birthday; and the second dose should have been administered at least 28 days after the first dose.
- Laboratory evidence of immunity, laboratory confirmation of disease. Equivocal test results should be considered as evidence of non-immunity.
- Unvaccinated personnel born before 1957 require laboratory evidence of immunity. Unvaccinated personnel who lack immunity should receive 2 doses of vaccine during an outbreak of measles.

Serologic testing is not recommended for health care personnel who have had two appropriate documented doses of MMR vaccine, or other acceptable evidence of immunity as outlined above. In the event that a HCP who has 2 documented doses of MMR vaccine is tested serologically and determined to have negative or equivocal measles titer results, it is not recommended that the person receive an additional dose of MMR vaccine.

CDC (VIS) material about the MMR vaccine, including risks of the vaccine, will be reviewed with the healthcare worker/student prior to administration of the vaccine. The healthcare worker/student will be given an opportunity for questions and responses provided.

3. Each patient will be interviewed about the following conditions:

- a. Allergy to neomycin
- b. Pregnancy
- c. Past history of vaccination reactions
- d. Thimerosal sensitivity
- e. Formaldehyde sensitivity
- f. Immunocompromise

A physician will be consulted in the event one or more of the above conditions exist:

4. 0.5 cc MMR vaccination will be given subcutaneously according to the following schedule:

- a. First dose provided
- b. Second dose provided after at least 28 days following the initial dose

5. In the event of an allergic reaction, as evidenced by severe bronchospasm, the nurse may implement the following protocol:

- a. Place supine. Take vital signs. Call for help.
- b. Administer 0.3 cc 1:1000 epinephrine subcutaneously x 1.
Administer 50 mg. diphenhydramine IM x 1.
- c. Tourniquet extremity proximal to injection site. Release every 10 minutes.

6. All females of childbearing age will be cautioned to avoid pregnancy for 1 month after vaccination.

7. A registered nurse may administer MMR under the contents of this policy.

RECORD KEEPING

All results attesting to vaccination or immunity will be maintained in the permanent medical record. A computerized database will also be kept by the Employee Health Service for UConn Health employees. Health care personnel and students will read and sign a MMR consent form prior to vaccination. The following items will be recorded with each dose on this form: date given, lot number and manufacturer, expiration date, site given, and provider signature. The total number of students who receive vaccination at the Employee Health Service is reported yearly to the Connecticut Department of Public Health Immunization Program.

OUTBREAK CONTROL:

Persons infected with measles are infectious with the onset of prodromal symptoms typically 4 days before rash onset through 4 days after rash onset.

If there is an exposure to the measles virus, attempts will be made to identify all contacts and evaluated for evidence of immunity. The Employee Health Service in conjunction with the Department of Epidemiology, will obtain a list of exposed health care workers and/or students and will review this list against the computerized database or medical record to ascertain their immune status.

Health care personnel without evidence of immunity will offered the first dose of MMR vaccine and excluded from work from day 5–21 following exposure.

Post-Exposure Prophylaxis: Healthcare workers/students who are contacts of a case-patient, who do not have presumptive evidence of measles immunity, should be vaccinated and offered immune globulin. MMR should be administered within 72-hours of exposure. Immunoglobulin may be administered within six days of exposure. The recommended dose of IG given intramuscularly (IGIM) is 0.5 mL/kg of body weight (maximum dose = 15 mL) and the recommended dose of IG given intravenously (IGIV) is 400 mg/kg, which is the standard dosage for non-immunocompromised persons,¹³ or quarantined until 21 days after their exposure to the case-patient. Contacts of people with measles compatible symptoms should be isolated, and appropriate infection control measures should be implemented to prevent further spread.⁶⁵ If immune globulin is administered to an exposed person, observations should continue for signs and symptoms of measles for 28 days after exposure since immune globulin may prolong the incubation period

Health care personnel without evidence of immunity who are not vaccinated after exposure will be removed from all patient contact and excluded from the facility from day 5 after their first exposure through day 21 after the last exposure, extended to 28 days if they have received postexposure intramuscular immune globulin of 0.25 mL/kg (40 mg IgG/kg)

Before returning to normal duties at UCONN HEALTH, the health care worker, who has been out on medical leave due to an exposure, must be cleared through the Employee Health Service.

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