Recommendations for MMR vaccine updated

by Jane F. Seward, M.B.B.S., M.P.H., FAAP

The Advisory Committee on Immunization Practices (ACIP) of the Centers for Disease Control and Prevention voted unanimously in October to approve changes to its recommendations for the measles-mumps-rubella (MMR) vaccine. The changes focus on evidence of immunity to measles and mumps, vaccination of HIV-infected people, and use of immune globulin (IG) for measles post-exposure prophylaxis.

The provisional ACIP recommendations will be available at www.cdc.gov/vaccines/recs/provisional/default.htm#acip.

Evidence of immunity

The criteria for evidence of immunity to measles and mumps for children and adults include the following changes:

• Documentation of physician-diagnosed measles or mumps no longer is acceptable presumptive evidence of immunity.
• Laboratory confirmation of measles or mumps is acceptable presumptive evidence of immunity.

Vaccination of HIV-infected people

The recommendations for vaccination of HIV-infected people were revised to simplify language (remove symptomatic and asymptomatic), to recommend that the second dose of MMR vaccine be given routinely at 4 to 6 years of age, and to recommend re-vaccination of children who got MMR vaccine before effective antiretroviral therapy (ART) was established.

• Two doses of MMR vaccine should be given to HIV-infected people ages 12 months and older who do not have evidence of current severe immunosuppression. Absence of severe immunosuppression is defined as CD4 percentages ≥15% for six months or longer for children ages 5 years and younger, and CD4 percentages ≥15% and CD4 count ≥200 cells/mm³ for six months or longer for those older than 5 years of age, or other current evidence of measles, rubella and mumps immunity.
• The first dose should be administered at 12 through 15 months and the second dose at 4 through 6 years, or as early as 28 days after the first dose.
• People with perinatal HIV infection who were vaccinated prior to establishment of effective ART should receive two appropriately spaced doses of MMR vaccine once effective ART has been established unless they have other acceptable current evidence of measles, rubella and mumps immunity. Establishment of effective ART is defined as receiving ART for six months or longer in combination with CD4 percentages ≥15% for six months or longer for children ages 5 years and younger, and CD4 percentages ≥15% and CD4 count ≥200 cells/mm³ for six months or longer for those older than 5 years.

IG for post-exposure prophylaxis

The recommendations for the use of immunoglobulin products for measles post-exposure prophylaxis were revised as follows:

• Infants younger than 12 months who have been exposed to measles should receive 0.5 mL/kg of body weight of IG given intramuscularly (IGIM) (maximum dose = 15 mL).
• Pregnant women without evidence of immunity to measles who are exposed to someone with the disease should receive 400 mg/kg of IG given intravenously (IGIV).
• Severely immunocompromised people exposed to someone with measles should receive 400 mg/kg of IGIV.
• IGIM (0.5 mL/kg of body weight; maximum dose = 15 mL) can be given to other people who do not have evidence of immunity to measles. However, priority should be given to people exposed in settings with intense, prolonged close contact, such as in a household, child care setting or classroom.

These revised doses of immunoglobulin for measles post-exposure prophylaxis have been increased from previous recommendations due to a recognition that measles antibody levels have declined over recent years. This is likely due to a much higher proportion of donors with vaccine-only associated measles immunity.

The fully revised and updated ACIP recommendations for MMR vaccine will be published in Morbidity and Mortality Weekly Report in 2013. These recommendations will replace the 1998 ACIP recommendations and those that came out after 1998.

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