

ACIP Provisional Recommendations

Prevention of Measles, Rubella, Congenital Rubella Syndrome (CRS), and Mumps

Date of ACIP vote: October 24, 2012

Date of posting of provisional recommendations: December 6, 2012

On October 24, 2012, the ACIP voted to approve revised recommendations for prevention of measles, rubella, congenital rubella syndrome (CRS), and mumps. These recommendations update the previous ACIP statement: Measles, Mumps, and Rubella – Vaccine Use and Strategies for Elimination of Measles, Rubella, and Congenital Rubella Syndrome and Control of Mumps: Recommendations of the Advisory Committee on Immunization Practices ([ACIP, 1998](#)).

Additional revisions to the 1998 ACIP recommendations previously have been adopted regarding: the interval for avoiding pregnancy after receiving rubella-containing vaccines ([ACIP, 2001](#)), adequate mumps vaccination for school-aged children and adults at high risk ([ACIP, 2006](#)), and evidence of immunity for health-care personnel (HCP) ([ACIP, 2011](#)).

A summary of the recommendations approved on October 24, 2012 is as follows:

1. Adequate presumptive evidence of immunity to measles, rubella, and mumps for routine vaccination, for students at post-high school educational institutions, and for international travelers:

	Routine vaccination	Students at post-high school educational institutions	International travelers
Measles	(1) documentation of age-appropriate vaccination with a live measles virus-containing vaccine [§] : -preschool-aged children: 1 dose -school-aged children (grades K-12): 2 doses -adults not at high risk [¶] : 1 dose, or (2) laboratory evidence of immunity [¶] , or (3) laboratory confirmation of disease, or (4) born before 1957	(1) documentation of vaccination with 2 doses of live measles virus-containing vaccine [§] , or (2) laboratory evidence of immunity [¶] , or (3) laboratory confirmation of disease, or (4) born before 1957	(1) documentation of age-appropriate vaccination with a live measles virus-containing vaccine: -infants age 6–11 months ^{††} : 1 dose -persons age ≥12 months [§] : 2 doses, or (2) laboratory evidence of immunity [¶] , or (3) laboratory confirmation of disease, or (4) born before 1957
Rubella	(1) documentation of vaccination with 1 dose of live rubella virus-containing vaccine [§] , or (2) laboratory evidence of immunity [¶] , or (3) laboratory confirmation of disease, or (4) born before 1957 (except women of childbearing age who could become pregnant ^{§§})	(1) documentation of vaccination with 1 dose of live rubella virus-containing vaccine [§] , or (2) laboratory evidence of immunity [¶] , or (3) laboratory confirmation of disease, or (4) born before 1957 (except women of childbearing age who could become pregnant ^{§§})	(1) documentation of vaccination with 1 dose of live rubella virus-containing vaccine [§] , or (2) laboratory evidence of immunity [¶] , or (3) laboratory confirmation of disease, or (4) born before 1957 (except women of childbearing age who could become pregnant ^{§§})
Mumps	(1) documentation of age-appropriate vaccination with a live mumps virus-containing vaccine [§] : -preschool-aged children: 1 dose -school-aged children (grades K-12): 2 doses -adults not at high risk [¶] : 1 dose, or (2) laboratory evidence of immunity [¶] , or (3) laboratory confirmation of disease, or (4) born before 1957	(1) documentation of vaccination with 2 doses of live mumps virus-containing vaccine [§] , or (2) laboratory evidence of immunity [¶] , or (3) laboratory confirmation of disease, or (4) born before 1957	(1) documented administration of 2 doses of live mumps virus-containing vaccine [§] , or (2) laboratory evidence of immunity [¶] , or (3) laboratory confirmation of disease, or (4) born before 1957

*May vary depending on current state or local requirements.

[§]The first dose of MMR vaccine should be administered on or after age 12 months; the second dose of measles- or mumps-containing vaccine should be administered no earlier than 28 days after the first dose.

[¶] Measles, rubella, or mumps immunoglobulin (IgG) in serum; equivocal results should be considered negative.

^{††} Children who receive a dose of MMR vaccine before age 12 months should be revaccinated with 2 doses of MMR vaccine, the first of which should be administered when the child is aged 12–15 months (12 months if the child remains in a high-risk area) and the second at least 28 days later.

^{§5} Women of childbearing age are adolescent girls and premenopausal adult women. Because rubella can occur in some persons born before 1957 and because congenital rubella and congenital rubella syndrome can occur in the offspring of women infected with rubella virus during pregnancy, birth before 1957 is not acceptable evidence of rubella immunity for women who could become pregnant.

^{¶¶} Adults at high risk include students in post-high school educational institutions, health-care personnel, and international travelers.

2. Recommendations for Vaccination of Persons with HIV infection:

- Two doses of MMR vaccine for all persons aged ≥ 12 months with HIV infection who do not have evidence of current severe immunosuppression [i.e., for persons aged ≤ 5 years: must have CD4 percentages $\geq 15\%$ for ≥ 6 months; and for persons aged > 5 years: must have CD4 percentages $\geq 15\%$ and CD4 ≥ 200 lymphocytes/mm³ for ≥ 6 months] or other current evidence of measles, rubella, and mumps immunity.
- The first dose should be administered at age 12 through 15 months and the second dose at age 4 through 6 years, or as early as 28 days after the first dose.
- Persons 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 [for persons aged ≤ 5 years: must have CD4 percentages $\geq 15\%$ for ≥ 6 months; and for persons aged > 5 years: must have CD4 percentages $\geq 15\%$ and CD4 ≥ 200 lymphocytes /mm³ for ≥ 6 months] unless they have other acceptable current evidence of measles, rubella, and mumps immunity.

3. Recommendations for use of immune globulin (IG) for measles post exposure prophylaxis:

- Infants aged < 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). (MMR vaccine can also be used, as appropriate, for infants aged 6-11 months.)
- Pregnant women without evidence of measles immunity who are exposed to measles should receive 400 mg/kg of IG given intravenously (IGIV).
- Severely immunocompromised[‡] persons, irrespective of evidence of measles immunity, who have been exposed to measles should receive 400 mg/kg of IG given intravenously (IGIV).
- IGIM (0.5 mL/kg of body weight; maximum dose = 15 mL) can be given to other persons who do not have evidence of measles immunity, but priority should be given to persons exposed in settings with intense, prolonged, close contact (e.g., household, child care, classroom, etc.).

[‡] Severely immunocompromised patients include patients with severe primary immunodeficiency; patients who have received a bone marrow or stem cell transplant until at least 12 months after finishing all immunosuppressive treatment, or longer where the patient has developed graft-versus-host disease; patients on treatment for ALL within and until at least six months after completion of immunosuppressive chemotherapy; and patients with a diagnosis of AIDS or HIV-infected persons with CD4 percent $< 15\%$ (all ages) or CD4 < 200 lymphocytes /mm³ (age > 5 years) and those who have not received MMR vaccine since receiving effective ART; some experts would include HIV-infected persons who lack recent confirmation of immunologic status or measles immunity.