MMR (Measles, Mumps, Rubella)

**Contraindications:**
- Severe allergic (anaphylactic) reaction to a prior dose or to any vaccine component
- Severe allergic reaction to gelatin
- Severe allergic reaction to neomycin
- Pregnancy or possible pregnancy within 4 weeks (use contraception).
- Known altered immunodeficiency (hematologic and solid tumors; congenital immunodeficiency; and long-term immunosuppressive therapy; HIV infection with evidence of severe immunosuppression)
- Untreated, active TB

Note: HIV is NOT a contraindication unless severely immunocompromised

Allergy to eggs is no longer considered a contraindication since most anaphylactic reactions are due to gelatin or the neomycin components. Therefore MMR may be administered to egg-allergic persons without prior routine skin testing or the use of special protocols.

A severe allergic reaction is one that is mediated by IgE, occurs within minutes or hours of the administration of vaccine, and requires medical attention. Examples of severe allergic reactions are generalized urticaria (hives), swelling of the mouth and throat, difficulty breathing, wheezing, hypotension, or shock.

**Synagis® and Respigam®** These special immunoglobulin preparations are used for RSV passive immunoprophylaxis in high-risk infants and toddlers. Synagis (=palivizumab), given IM, contains only monoclonal RSV antibody and thus does not interfere with any vaccine. Respigam (= RSV - IVIG), given intravenously, also contains other antibodies and thus can interfere with MMR and VZV. These two vaccines should be given => 2 weeks before Respigam. If Respigam already given, wait 5 months afterwards before giving VZV; wait 9 months afterwards before giving MMR.

**Precautions:**
- Moderate or severe illnesses with or without a fever (Minor illness is not a reason to postpone vaccination).
- Recent receipt of antibody-containing blood products, including immune globulin, whole blood or packed red blood cells in past 11 months; see ACIP statement General Recommendations on Immunization or AAP’s Red Book regarding time to wait before vaccinating.
- Thrombocytopenia or history of thrombocytopenic purpura

There is no evidence that a concurrent acute illness reduces vaccine efficacy or increases vaccine adverse events. The concern is that an adverse event (particularly fever) following vaccination could complicate the management of a severely ill person.

In general, the events or conditions listed as precautions, although not contraindications, should be carefully reviewed. When these conditions are present, the individual’s disease risk should be carefully assessed. In situations when the benefit outweighs the risk (e.g., community outbreak or foreign travel), vaccination should be considered.
The decision to vaccinate should be based on consideration of the benefits of immunity to measles, mumps and rubella vs. the risk of recurrence or exacerbation of thrombocytopenia following vaccination, or from natural infections of measles or rubella. In most instances, the benefits of vaccination will be much greater than the potential risks and justify giving MMR, particularly in view of the even greater risk of thrombocytopenia following measles or rubella disease. However, if a prior episode of thrombocytopenia occurred in close temporal proximity to vaccination, it might be prudent to avoid a subsequent dose.

**Not Contraindications:**

- **Allergy to eggs (See Contraindication note above)**
- Tuberculosis or positive PPD skin test
- Simultaneous TB skin testing (Note: Measles vaccination may temporarily suppress tuberculin reactivity. MMR is not contraindicated if a PPD test was recently applied. If PPD testing cannot be done the day of MMR vaccination, the test should be postponed for 4-6 weeks. Varicella vaccine does not suppress PPD reactivity so there are no timing restrictions with PPD and Varicella vaccine.)
- Breastfeeding
- Pregnancy of mother or household contact of recipient
- Immunodeficient family member or household contact
- Non-anaphylactic reaction to gelatin or neomycin

The sources for these contraindications and precautions are:

Summary of Rules for Childhood and Adoles. Immunization, Immunization Action Coalition, March 2004
Summary of Recommendations for Adult Immunization, Immunization Action Coalition, September 2003
Epidemiology and Prevention of Vaccine-Preventable Diseases
Appendix A - Contraindications and Precautions to Routine Childhood Vaccinations
8th Edition (January 2004), Dept. of Health and Human Services, Centers for Disease Control and Prevention