

Considerations for MMR and Varicella Immunization of Immunosuppressed Individuals

Consult the most appropriate physician, as described in [Immunization with Inactivated and Live Vaccines](#), and obtain a written referral regarding live vaccine administration to any individual whose immune system is compromised as the result of disease or therapy.

Asplenia/Hyposplenia (congenital, surgical, or functional):

- MMR and varicella vaccines are recommended, depending on immunization history, age, and susceptibility.

Hematopoietic Stem Cell Transplant (HSCT):

- MMR and varicella vaccines may be considered if the client is ≥ 24 months post-transplant AND there is no graft-versus-host disease and no immunosuppressive treatment.

High doses of oral corticosteroid therapy of more than 14 days duration (≥ 2 mg/kg per day or ≥ 20 mg of prednisone daily):

- Depending on immunization history, age, and susceptibility, MMR and varicella vaccines may be considered if the client is able to discontinue therapy for one month prior to immunization.
- It is not necessary to obtain a written referral for immunization of clients who are receiving physiologic replacement of corticosteroids (< 2 mg/kg of prednisone per day) or who are receiving oral corticosteroid therapy for less than 14 days.

HIV infection:

- Depending on immunization history, age, and susceptibility, varicella and MMR vaccine should be offered based on NACI recommended immunologic and CDC clinical categories. Refer to [Referral Form for Varicella Vaccination](#) and [Referral Form for MMR Vaccination](#).

Immunosuppressive therapy (e.g., chemotherapy, radiation therapy, certain anti-rheumatic drugs, and drugs used for the management of inflammatory bowel disease):

- Live vaccines are contraindicated during therapy but may be considered if only low doses of immunosuppressive drugs are required and there is significant risk of wild-type infection.
- Depending on immunization history, age, and susceptibility, MMR and varicella vaccines may be considered if ≥ 3 months have elapsed since immunosuppressive therapy was discontinued.

Isolated immunodeficiencies (i.e., humoral (IG), neutrophil, or complement deficiency):

- Depending on immunization history, age, and susceptibility, MMR and varicella vaccines are recommended.

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Leukemia, lymphoma or generalized malignancy:

- MMR and varicella vaccines are contraindicated until ≥ 3 months have elapsed since the client was cured and immunosuppressive therapy was discontinued.
- For clients with acute lymphocytic leukemia (ALL), varicella vaccine is recommended if the client's disease has been in remission for ≥ 12 months, the client's total lymphocyte count is $\geq 1.2 \times 10^9/L$, the client is not receiving radiation therapy, and maintenance chemotherapy can be withheld for at least 1 week before to 1 week after immunization.
- MMR and varicella vaccines are indicated according to the client's immunization history, age, and susceptibility.

Solid organ transplant candidate or recipient:

- MMR and varicella vaccines are recommended for solid organ transplant **candidates**, depending on the client's immunization history, age, and susceptibility.
- MMR and varicella vaccines are contraindicated for solid organ transplant **recipients**. MMR vaccine may be considered for seronegative females before pregnancy ≥ 2 years post transplantation if the individual is taking minimal immunosuppressive therapy.

Chronic kidney disease and dialysis clients:

- MMR and varicella vaccines are recommended, depending on the client's immunization history, age, and susceptibility.

Live oral attenuated typhoid vaccine is contraindicated for all immunocompromised persons, regardless of benefits.

A family history of congenital immunodeficiency may not be evident in infants < 12 months of age but may be documented as an overwhelming infection following natural infection or receipt of a live vaccine with or without death, including in older siblings or siblings born earlier. Assess family history of these types of events prior to administering a live vaccine to an infant < 12 months of age (i.e., MMR vaccine for an infant traveling to a measles endemic region). If such a history is present, live vaccines are contraindicated.