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.
Considerations for MMR and Varicella Immunization of Immunosuppressed Individuals

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 ≥ 1.2 X 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.