

Quick Look at Recombinant Influenza Vaccine (Quadrivalent): **RIV4, 2022-23**

Indications for Use and Schedule

- Use RIV4 (Flublok® Quadrivalent) for persons aged **18 years and older**
- Vaccination is recommended to be offered by the end of October and **continued throughout the flu season** until vaccine expires (see below for further timing considerations)

Key Points

- **With the exception of adults 65 years and older** there is no preference for any flu vaccine product over another
 - Ensure vaccination occurs with an **age-appropriate product and dose volume**
- **Adults 65 years and older** should preferentially receive either HD-IIV4, RIV4, or aIIV4
 - If none of these three vaccines are available, then any other age-appropriate influenza vaccine should be used

Vaccine Administration¹

- Administer RIV4 **intramuscular (IM)** in the deltoid of the arm (preferred) or anterolateral thigh using a 1- to 1.5-inch needle
- Must administer vaccine IM, if given by another route; should repeat dose as soon as possible
- Can be given with other vaccines at the same visit – do not miss an opportunity
 - Use separate sites, space at least 1-inch apart

Storage and Handling

- Store in the refrigerator at **36°F to 46°F (2°C to 8°C)**
- Pharmaceutical-grade (purpose-built) units are preferred for vaccine storage
- Do **not** freeze; keep in original box with lid on/protect from light
- Store different flu vaccine formulations apart and label with age indications
- Do **not** use expired vaccine

INFLUENZA DOSE VOLUME IS BASED ON AGE AND FLU VACCINE PRODUCT:

- RIV4 dosage for persons aged 18 years and older is **0.5 mL** per dose

CONTRAINDICATIONS (PERSONS WHO SHOULD NOT RECEIVE RIV4):

- Severe allergic reaction (e.g., anaphylaxis) to a previous dose of any RIV or any component of RIV4

PRECAUTIONS (IN CERTAIN CIRCUMSTANCES, PERSONS MAY RECEIVE RIV4):

- Moderate or severe acute illness with or without fever
- History of Guillain-Barré syndrome (GBS) within 6 weeks of previous flu vaccination
- History of a severe allergic reaction to a previous dose of any other flu vaccine (i.e., any egg-based IIV, cIIIV, or LAIV)
 - If administered, should occur in a medical setting in which a health care provider with experience in recognition and management of severe allergic conditions is available

FURTHER POINTS TO CONSIDER:

- Vaccination is recommended to be offered by the end of October and **continued throughout the flu season** until vaccine expires
 - For most adults (particularly adults aged 65 years and older) and for pregnant persons in the first or second trimester: Vaccination during July and August should be avoided unless there is concern that vaccination later in the season might not be possible

- Pregnant persons in the 3rd trimester can be considered to receive flu vaccine soon after it arrives (July or August), as vaccination has shown to reduce risk of flu illness in infants in the 1st months of life
- ACIP recommends that adults 65 years and older preferentially receive any of the following higher dose or adjuvanted influenza vaccines: quadrivalent high-dose inactivated influenza vaccine (HD-IIV4, Fluzone® High-Dose), quadrivalent recombinant influenza vaccine (RIV4, Flublok®), or quadrivalent adjuvanted inactivated influenza vaccine (aIIV4, Fluad®). If none of these three vaccines is available at an opportunity for vaccine administration, then any other age-appropriate influenza vaccine should be administered
- **Note:** For persons who report egg allergy, administer any flu vaccine appropriate for the recipient’s age and health status; if the person reports a reaction to eggs other than hives and a vaccine other than cclIV4 or RIV4 is used, administer flu vaccine in a medical setting in which a healthcare provider with experience in recognition and management of severe allergic conditions is immediately available
 - RIV4 **does not** contain egg protein
 - Refer to “2022-23 Influenza Vaccination for Persons Who Report Egg Allergy” at <https://www.michigan.gov/flu/resources/resources-for-health-professionals>
- RIV4 contains recombinant hemagglutinin produced in an insect cell line using genetic sequences from cell-derived influenza viruses and is manufactured without the use of influenza viruses or eggs
- RIV4 can be given with all other vaccines and with antiviral medications; for more information, refer to www.cdc.gov/flu
- Use current IIV/RIV Vaccine Information Statement (VIS) with details about the Michigan Care Improvement Registry (MCIR); Michigan VIS are posted at www.michigan.gov/VIS
- Document type of flu vaccine given on vaccine administration record and record card as “RIV4”
- For more information on Cell Culture-based IIV (ccIIV4, Flucelvax® Quadrivalent), Inactivated Influenza Vaccines (IIV4, High-Dose IIV4, and Adjuvanted IIV), or Live Attenuated Influenza Vaccine (LAIV4, FluMist® Quadrivalent), refer to additional Quick Looks at www.michigan.gov/vaccinequicklooks

¹ Assessment of needle size and injection site must be made for each person based on size of the muscle, thickness of adipose tissue at the injection site, volume of the material to be administered, and injection technique. For more information, see Advisory Committee on Immunization Practices (ACIP) General Best Practice Guidelines for Immunization at www.cdc.gov/vaccines/hcp/acip-recs/general-recs/index.html.

For more guidance on influenza vaccine recommendations, refer to “Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the ACIP—U.S., 2022-23 Influenza Season,” MMWR Recomm Rep 2022; 71(1);1-28, located at <https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/flu.html>

For more information regarding flu vaccination, contact your local health department, visit Michigan Department of Health and Human Services at www.michigan.gov/flu, or visit www.cdc.gov/flu or www.cdc.gov/mmwr.