Long-Term Care Updates

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Influenza Vaccine Recommendation Updates for 2023-2024

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By Jessica Cumber, PharmD

Introduction

New recommendations from the Advisory Committee on Immunization Practices (ACIP) for the prevention and control of seasonal influenza with vaccines were published in August 2023.[1] Two updates were noted in the recommendations: the composition of the influenza vaccine and a change in the handling of egg allergy. Routine annual vaccination against influenza is still recommended for all individuals ≥6 months without a contraindication. Vaccination should ideally be offered to patients in September and October and continue throughout the season.[1]

Composition

The 2023-24 influenza vaccine contains an updated H1N1 component.[1] See Table 1 for the vaccine composition.

Table 1. 2023-24 U.S. Influenza Vaccine Composition[1]

	Egg-based vaccines	Culture-based and recombinant vaccines
A strains	A/Victoria/4897/2022 (H1N1)pdm09-like virus*	A/Wisconsin/67/2022 (H1N1)pdm09-like virus*
	A/Darwin/9/2021 (H3N2)-like virus	A/Darwin/6/2021 (H3N2)-like virus
B strains	B/Austria/1359417/2021 (Victoria lineage)-like virus	
	B/Phuket/3073/2013 (Yamagata lineage)-like virus	

*Changed from last season

All influenza vaccines continue to be quadrivalent in nature. For the 2023-24 season, the adjuvanted (a-IIV4), recombinant (RIV4) and high dose (HD-IIV4) vaccines are again preferred for patients ≥65 years. The live attenuated influenza vaccine (LAIV4) should only be used in healthy patients ages 2 through 49 years.[1] The available influenza vaccine products for this season can be found in Table 2.

Table 2. Influenza vaccines for the 2023-2024 season[1]

Brand name	Formulation	Age indication
IIV4		
Afluria Quadrivalent	0.5mL prefilled syringe	≥3 years
	5mL multidose vial	≥6 months (dose is 0.25mL for ages 6 through 35 months) (jet injector only approved for 18 to 64 years)
Fluarix Quadrivalent	0.5mL prefilled syringe	≥6 months
FluLaval Quadrivalent	0.5mL prefilled syringe	≥6 months
Fluzone Quadrivalent	0.5mL prefilled syringe	≥6 months
	0.5mL prefilled syringe	≥6 months
	5mL multidose vial	≥6 months (dose is 0.25mL or 0.5mL for ages 6 through 35 months)
ccIIV4		
Flucelvax Quadrivalent	0.5mL prefilled syringe	≥6 months
	5mL multidose vial	≥6 months
HD-IIV4		
Fluzone High-Dose Quadrivalent	0.7mL prefilled syringe	≥65 years
aIIV4		
Fluad Quadrivalent	0.5mL prefilled syringe	≥65 years
RIV4		
Flublok Quadrivalent	0.5mL prefilled syringe	≥18 years
LAIV4		
FluMist Quadrivalent	0.2mL prefilled single-use intranasal sprayer	2 through 49 years

Abbreviations: IIV4 – quadrivalent inactivated influenza vaccine; ccIIV4 – quadrivalent cell cultured inactivated influenza vaccine; HD-IIV4 – quadrivalent high-dose inactivated influenza vaccine; aIIV4 – quadrivalent adjuvanted inactivated influenza vaccine; RIV4 – quadrivalent recombinant influenza vaccine; LAIV4 – quadrivalent live attenuated influenza vaccine

Egg allergy

Previously, it was recommended that persons who have had an allergic reaction to eggs involving symptoms other than urticaria should be vaccinated in an inpatient or outpatient setting where a health care provider is able to manage allergic reactions if an egg-based vaccine is administered.[1] To evaluate the safety of influenza vaccination in persons with egg allergies, an ACIP work group conducted a systematic review. Outcomes assessed included death, anaphylaxis, allergic reactions requiring outpatient or emergency medical attention, and allergic reactions that manifested as cardiovascular symptoms, respiratory symptoms, angioedema, or urticaria. A total of 31 studies in patients with egg allergies were reviewed. Among the subjects, there were no occurrences of death, anaphylaxis, or hospitalization. Rates of reactions necessitating outpatient or emergency medical attention were 0.2% for seasonal inactivated influenza vaccine (IIV) and 0% for the live attenuated influenza vaccine (LAIV). Additionally, reactions involving cardiovascular symptoms, respiratory symptoms, angioedema, or generalized urticaria occurred at a rate of 0.3% for seasonal IIV and 0.9% for LAIV. Upon further analysis, it was noted that there were no instances of any of the outcomes in patients with severe egg allergy; however, data in this population were limited. Based on these data, the majority of members in the work group felt that when vaccinating a person with an egg allergy against influenza, "the desirable consequences clearly outweigh the undesirable consequences in most settings."[2] Therefore, ACIP changed the recommendation for this population. Persons with an egg allergy may receive any influenza vaccine (egg-based or non egg-based) that is otherwise appropriate for their age and health status. By itself, egg allergy necessitates no additional safety measures for influenza vaccination beyond those required for the receipt of any vaccine.[1] However, an allergic reaction to a previous dose of an influenza vaccine may be a precaution or contraindication to the receipt of another.[1] See Table 3 for more information.

Table 3. Contraindications and precautions for influenza vaccination in persons with a severe allergic reaction after a previous dose[1]

Vaccine (of any valency) associated with previous severe allergic reaction	Egg-based IIV4 or LAIV4	ccIIV4	RIV4
Any egg-based IIV or LAIV	Contraindication	Precaution	Precaution
Any ccIIV	Contraindication	Contraindication	Precaution
Any RIV	Contraindication	Precaution	Contraindication
Unknown influenza vaccine	Allergist consultation recommended		

Administration with other vaccines

Persons needing influenza vaccination may also be candidates for other vaccines. In the geriatric population specifically, COVID-19 and Respiratory Syncytial Virus (RSV) vaccines may be required. Simultaneous administration of recommended vaccines ensures that patients are fully protected against diseases by the appropriate time. The CDC states that another vaccine may be given on the same day (using different anatomic sites) or any day before or after the COVID-19 vaccine.[3] Coadministration of the influenza and RSV vaccines is slightly more complex. Per ACIP and the CDC, coadministration of an RSV vaccine with another adult vaccine at the same visit is acceptable. However, data are limited regarding immunogenicity in this situation.[4] Available data have shown that antibody titers were lower after coadministration, but the clinical significance of this is still unknown. Additionally, coadministration may increase local or systemic reactogenicity; however, the evidence is mixed. Several vaccines now contain adjuvants including Zoster (Shingrix), Hepatitis B (Heplisav-B), and RSV (Arexvy). Because of the limited data available regarding simultaneous administration of vaccine adjuvants, ACIP recommends that a non-adjuvanted influenza vaccine be considered if another adjuvanted vaccine is being administered. However, influenza vaccination should not be delayed if a specific vaccine is unavailable.[3]

Conclusion

The composition of the 2023-24 influenza vaccine was updated with a new H1N1 strain. The CDC and ACIP continue to recommend routine vaccination for all individuals ≥6 months without a contraindication, and indicate a preference for HD-IIV, RIV-4, or aIIV4 in those ≥65 years. Persons with an egg allergy may receive any influenza vaccine (egg-based or non egg-based) that is otherwise appropriate for their age and health status. Egg allergy alone necessitates no additional safety measures for influenza vaccination beyond those required for the receipt of any vaccine.[1] It is acceptable to coadminister influenza vaccine with the COVID-19 or RSV vaccine using different sites.[3,4] If another adjuvanted vaccine is being administered, a non-adjuvanted influenza vaccine may be considered; however, influenza vaccination should not be delayed if a specific vaccine is unavailable.[3]

References:

1. Grohskopf LA, Blanton LH, Ferdinands JM, et al. Prevention and control of seasonal influenza with vaccines: Recommendations of the Advisory Committee on Immunization Practices - United States, 2023-24 Influenza Season. *MMWR Recomm Rep*. 2023;72(2):1-28.
2. Centers for Disease Control and Prevention. ACIP Evidence to Recommendations (EtR) Framework: Safety of Influenza Vaccines for Persons with Egg Allergy. Updated August 10, 2023. Accessed September 26, 2023. https://www.cdc.gov/vaccines/acip/recs/grade/influenza-egg-allergy-etr.html
3. Immunize.org. Ask the Experts: Influenza. Updated September 10, 2023. Accessed September 26, 2023. https://www.immunize.org/askexperts/experts_inf.asp.
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