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GAVIN NEWSOM
Governor

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Dear Colleagues,

Flu season has arrived and people living with HIV are at high risk of serious influenza-related complications. Getting the flu vaccine – both for people living with HIV and for healthcare providers – is our best protection against the flu, as demonstrated in multiple clinical studies.

As a number of new influenza vaccine products have become available, CDPH has created an informational FAQ on the use of these vaccines in people living with HIV (see below). Flu vaccination is a covered benefit by all insurance providers and by California's AIDS Drug Assistance Program (ADAP). Let's utilize this benefit and protect even more people during the 2019-20 flu season!

Please email me or Dr. Cora Hoover in CDPH's Immunization Branch (Cora.Hoover@cdph.ca.gov) with any questions regarding the FAQ.

Sincerely,

Philip Peters, MD
Office of AIDS Medical Officer
California Department of Public Health
Email: Philip.Peters@cdph.ca.gov



Seasonal Influenza (Flu) Vaccine “Frequently Asked Questions” for HIV Care Providers

Should all people living with HIV receive an influenza (flu) immunization?

Yes, all people 6 months of age and older who do not have contraindications should be vaccinated annually. People living with HIV are a priority population for influenza immunization because they are at increased risk for severe influenza. Studies have shown that flu vaccination prevents illness and doctor’s visits among people with immune suppression from HIV or other conditions, though may not work as well in people with low CD4 cell counts (less than 200 cells/mm³).

What influenza (flu) vaccines can be administered this season for people living with HIV?

All FDA-approved influenza vaccines can be administered at an age-appropriate dose for people living with HIV, except for the live attenuated influenza vaccine (Flumist), which is contraindicated in people living with HIV regardless of age or CD4 count. Standard-dose inactivated influenza vaccine is quadrivalent, meaning that the vaccine protects against four strains, including two influenza A viruses (H1N1 and H3N2) and two influenza B viruses. In addition to standard products, high-dose and adjuvanted products are available for patients age 65 years and older. Most influenza vaccines are manufactured with an egg-based process but there are also cell culture-based and recombinant formulations available.

Is a particular influenza (flu) vaccine brand or formulation preferred for people living with HIV?

No, the Advisory Committee on Immunization Practices (ACIP) and the CDC does not recommend a particular vaccine as preferred for people living with HIV. Any inactivated or recombinant influenza vaccine that is age-appropriate may be used. Vaccination should not be delayed if a specific product is not readily available.

Why can’t the live attenuated influenza vaccine (Flumist) be administered to people living with HIV?

Because of limited evaluation so far, there is a paucity of safety and efficacy data for live attenuated influenza vaccine use in people living with HIV. In addition, there are alternative safe and effective influenza vaccines available.

What are the contraindications to influenza (flu) vaccination?

Contraindications to flu immunization are rare. A history of a severe allergic reaction (e.g., anaphylaxis) to the vaccine or any of its components is a contraindication to the receipt of additional doses. Information about vaccine components can be found in the package inserts for each vaccine.

Immunization is safe for most patients with egg allergy (see “Persons with a History of Egg Allergy” section in the ACIP’s [2019-20 Influenza Vaccine Recommendations: https://www.cdc.gov/mmwr/volumes/68/rr/rr6803a1.htm?s_cid=rr6803a1_w#recommendationsfortheuseofinfluenzavaccines.2019%E2%80%9320](https://www.cdc.gov/mmwr/volumes/68/rr/rr6803a1.htm?s_cid=rr6803a1_w#recommendationsfortheuseofinfluenzavaccines.2019%E2%80%9320)).

Moderate or severe acute illness or a prior history of Guillain-Barre syndrome within 6 weeks after receipt of influenza vaccination are precautions to influenza immunization, which means that the risks and benefits of immunization should be considered on a case-by-case basis.

Tell me about the use of high dose, adjuvanted, and recombinant influenza (flu) vaccine in older adults.

Older adults are at increased risk for complications of flu, and vaccine efficacy also decreases with age. These concerns have led to the evaluation of products specifically for people aged 65 and over. Research regarding the relative effectiveness of these products is ongoing.

Fluzone High-Dose¹ is a trivalent, inactivated influenza vaccine that contains four times as much antigen as standard-dose vaccines. A randomized trial conducted over two influenza seasons (2011–12 and 2012–13) among 31,989 persons aged ≥ 65 years found that Fluzone High-Dose was 24% more effective than standard-dose Fluzone.

Fluad² is a trivalent, adjuvanted inactivated influenza vaccine. An adjuvant is a substance added to a vaccine to increase the immune response. The MF59 adjuvant in Fluad is based on squalene, an oil that occurs naturally in many plants and animals. In a small observational study among adults age 65 years and older, Fluad was about 63% more effective than unadjuvanted inactivated influenza vaccine.

Flublok³ is a recombinant, quadrivalent influenza vaccine that contains a higher dose of the influenza hemagglutinin antigen. It is approved for use in persons 18 years of age and older. In a randomized controlled trial among 8,604 persons aged at least 50 years during the 2014-15 season, the probability of influenza-like illness was 30% lower of in those receiving Flublok compared to those receiving a standard dose quadrivalent inactivated vaccine.

Should older adults, including older adults living with HIV, preferentially receive the high-dose (Fluzone High-Dose), adjuvanted vaccine (Fluad), or recombinant (Flublok) influenza vaccine?

Older adults living with HIV can receive any of these vaccines but the Advisory Committee on Immunization Practices (ACIP) and the CDC does not recommend these vaccine as preferred for use in older adults over the standard-dose, inactivated influenza vaccine. Vaccination should also not be delayed if a specific product is not readily available.

Are high-dose (Fluzone High-Dose) and adjuvanted vaccine (Fluad) recommended for people younger than 65 years of age?

No. Fluzone High-Dose and Fluad are licensed only for people age 65 years and older and are not recommended for younger people.

Sometimes patients aged 65 years and older who have received the standard-dose influenza vaccine hear about the high-dose (Fluzone High-Dose) or adjuvanted vaccine (Fluad) and want to receive that, too. Is this okay to administer?

No. ACIP does not recommend that adolescents or adults receive more than one dose of influenza vaccine in a season.

¹ Fluzone High-Dose study: Diaz Granados CA, Dunning AJ, Kimmel M, et al. Efficacy of high-dose versus standard-dose influenza vaccine in older adults. *N Engl J Med* 2014;371:635–45.

² Fluad study: Van Buynder PG, Konrad S, Van Buynder JL, et al. The comparative effectiveness of adjuvanted and unadjuvanted trivalent inactivated influenza vaccine (TIV) in the elderly. *Vaccine* 2013;31:6122–8.

³ Flublok study: Dunkle LM, Izikson R, Patriarca P, Goldenthal KL, Muse D, Callahan J, et al. Efficacy of Recombinant Influenza Vaccine in Adults 50 Years of Age or Older. *N Engl J Med*. 2017 Jun 22;376(25):2427-36.

Where can I get more information regarding flu vaccination for my patients?

The CDC has published its annual recommendations for influenza vaccination for the 2019-2020 influenza season, available [here](#)

(https://www.cdc.gov/mmwr/volumes/68/rr/rr6803a1.htm?s_cid=rr6803a1_w#recommendations-fortheuseofinfluenzavaccines,2019%E2%80%9320).

The CDC also has a resource page for influenza vaccination for HIV-infected persons, available [here](https://www.cdc.gov/flu/highrisk/hiv-flu.htm) (<https://www.cdc.gov/flu/highrisk/hiv-flu.htm>).