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Clark County Combined Health District- Health Advisory Clarifying COVID-19 Vaccination Recommendations for Immunocompromised Individuals February 1, 2022

Purpose: Fourth / booster doses are currently recommended for some immunocompromised individuals. This health alert is to support healthcare providers as they educate patients regarding the additional doses and boosters. The following terminology may be helpful to define:

- Primary Series: 2-dose series of mRNA COVID-19 vaccine (Pfizer-BioNTech and Moderna) or a single dose of Janssen vaccine.
- **Booster Dose:** A subsequent dose of vaccine administered to enhance or restore protection by the primary vaccination which might have waned over time. All persons 12 years and older should get a booster shot when they become eligible. See Table 3 in this Health Alert.
- Additional Primary Dose: A subsequent dose of vaccine administered to people who likely did not mount a protective immune response after initial vaccination. An additional primary mRNA COVID-19 vaccine dose is recommended for moderately or severely immunocompromised people who received a 2-dose mRNA vaccine primary series. This dose is 28 days from the second mRNA dose of the Primary Series.

Moderate and severe immunocompromising conditions and treatments include, but are not limited to:

- Active treatment for solid tumor and hematologic malignancies
- Receipt of solid-organ transplant and taking immunosuppressive therapy Receipt of CAR-T-cell therapy or hematopoietic cell transplant (HCT) (within 2 years of transplantation or taking immunosuppression therapy)
- Moderate or severe primary immunodeficiency (e.g., DiGeorge syndrome, Wiskott-Aldrich syndrome)
- Advanced or untreated HIV infection (people with HIV and CD4 cell counts < 200/mm3, history of an AIDS-defining illness without immune reconstitution, or clinical manifestations of symptomatic HIV)
- Active treatment with high-dose corticosteroids (i.e., ≥20 mg prednisone or equivalent per day when administered for ≥2 weeks), alkylating agents, antimetabolites, transplant-related immunosuppressive drugs, cancer chemotherapeutic agents classified as severely immunosuppressive, tumor necrosis factor (TNF) blockers, and other biologic agents that are immunosuppressive or immunomodulatory.

Which comes first? Someone who is eligible for an additional primary dose, you should get this dose before a booster.

Table 1: Additional Primary Doses and Booster Doses by Type of COVID-19 Vaccine

Eligible For	If you received Pfizer-bionTech	If you received Moderna	If you received Johnson & Johnson's Janssen
Additional Primary Dose	 People age 5+ who are moderately or severely immunocompromised should get an additional primary dose of Pfizer BioNTech COVID-19 vaccine Given 28 days after 2nd dose 	 People age 18+ who are moderately or severely immunocompromised should get an additional primary dose of Moderna COVID-19 vaccine Given 28 days after 2nd dose 	No additional Primary dose is recommended at this time.
Booster Dose	 Teens ages 12–17 should only get a Pfizer-BioNTech COVID-19 vaccine booster dose People age 18+ should get a booster shot of either Pfizer-BioNTech or Moderna (mRNA COVID-19 vaccines) in most situations Given 5 months after additional primary dose 	 People age 18+ should get a booster dose of either Pfizer-BioNTech or Moderna (mRNA COVID-19 vaccines) in most situations Given 5 months after additional primary dose 	 People age 18+ should get a booster dose of either Pfizer-BioNTech or Moderna (mRNA COVID-19 vaccines) in most situations Given 2 months after 1st dose



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We have included some additional detail for healthcare providers, regarding Primary Series, Additional Primary Doses and Booster Doses.

COVID-19 vaccines: Primary Series and Additional Primary Dose

Table 2: Primary Series and Additional Primary Dose

Vaccine manufacturer	Age indication	Vial cap color denoting formulation	Dose	Injection volume	Number of doses in primary series (interval between doses)	Additional primary dose in immunocompromised people (interval since second dose)
Pfizer- BioNTech	5–11 years	Orange	10 µg	0.2 mL	2 (21 days)	1 (≥28 days)
Pfizer- BioNTech	≥12 years	Purple or gray	30 µg	0.3 mL	2 (21 days)	1 (≥28 days)
Moderna	≥18 years	Not applicable	100 µg	0.5 mL	2 (28 days)	1 (≥28 days)
Janssen	≥18 years	Not applicable	5×10 ¹⁰ viral particles	0.5 mL	1 (Not applicable)	Not applicable

COVID-19 vaccines: Booster Dose by primary series

The following vaccine-specific booster dose and volume should be administered regardless of whether the vaccine is homologous (same dose as primary series) or heterologous (different than primary series).

- Pfizer-BioNTech (purple cap or gray cap): 30 µg in a volume of 0.3 mL (same dose as the primary series dose and additional primary dose).
- Moderna: 50 μg in a volume of 0.25 mL. This is a different dose than what is used for the primary series dose and the additional primary dose.
- Janssen: 5×10¹⁰ viral particles in a volume of 0.5 mL (same dose as the primary series dose)

Table 3: Booster doses by Primary Series

Vaccine completed for primary series	Authorized age for vaccine booster	Interval between last primary dose (including additional dose, when applicable) and booster dose	Number of doses	Injection volume and product that may be given as booster dose*1
Pfizer-BioNTech	≥12 years	≥5 months	1	0.3 mL Pfizer-BioNTech*, or 0.25 mL Moderna, or 0.5 mL Janssen
Moderna	≥18 years	≥5 months	1	0.25 mL Moderna, or 0.3 mL Pfizer-BioNTech, or 0.5 mL Janssen
Janssen	≥18 years	≥2 months	1	0.5 mL Janssen ¹ , or 0.3 mL Pfizer-BioNTech, or 0.25 mL Moderna

^{*}Only Pfizer BioNTech can be used as a booster does in those ages 12-17 years. Use of an mRNA vaccine for a booster dose is preferred over Janssen vaccine.



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Sources:

- 1) Stay up to Date with Your Vaccines. CDC. https://www.cdc.gov/coronavirus/2019-ncov/vaccines/stay-up-to-date.html
- 2) Interim Clinical Considerations for Use of COVID-19 Vaccines Currently Approved or Authorized in the United States. CDC. https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html#additional-primary-dose

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Alert Details

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From: Clark County Combined Health District Time Sensitivity: Urgent Relevance to Public Health: High

To: Medical offices, Urgent Cares, Clinics, Hospitals, Laboratories and ICPs

Target Audience: Physicians, PA, NP, Nurses, Medical Staff, ICP staff, and Laboratorians