

Updated September 27, 2021

## Alberta COVID-19 Immunization Program Update

Dear colleagues,

I am sharing this update with some important information about COVID-19 immunization.

- Starting September 1, third doses will be made available for the following high risk individuals:
  - certain groups of immunocompromised Albertans at an 8 week interval from the second dose.
  - all residents in seniors' congregate living facilities at a 5 month interval from the second dose and
- In addition, supplemental mRNA doses will also be made available to Albertans who are travelling to a jurisdiction that does not accept visitors who have been vaccinated with Covishield/AstraZeneca or a mixed series.

More information on these changes is included below.

Thank you for your efforts to support the COVID-19 immunization program through patient counseling, vaccine provision for those involved, and immunization for you and your teams.

Yours sincerely,

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Chief Medical Officer of Health

### Third doses for specific high risk populations: Overview

- A complete two-dose COVID-19 vaccine series provides strong protection against COVID-19 infection and severe outcomes, [including against the Delta variant](#), in the general population.
- However, for some populations, a third dose may be required to provide stronger protection for those who have a suboptimal or waning immune response to vaccines, which puts them at increased risk of COVID-19 infection.
- To continue protecting Alberta's most vulnerable, as recommended by the Alberta Advisory Committee on Immunization, the province is making third doses of the COVID-19 vaccine available to those at highest-risk.

- At this time, the following vulnerable populations are eligible for a third dose:
  - immunocompromised individuals born in 2009 or earlier (i.e., 12 years of age and older) with the specific conditions listed in the section below
  - all residents in seniors' congregate living facilities
- An mRNA vaccine should be administered as the third dose except in the event of contraindication or refusal.
- Side effects and adverse events: Currently available clinical evidence indicates that adverse events reported after an additional dose were consistent with previous doses and mostly mild or moderate. No serious adverse events were reported after administration of a third dose.
- Alberta will continue enhanced surveillance of Adverse Events Following Immunization (AEFI) and Adverse Events of Special Interest (AESI), including those related to additional doses of COVID-19 vaccines. Health care professionals are reminded of their critical role and mandated responsibility to report adverse events following immunization that meet Alberta's definition of an AEFI or AESI. For information on what needs to be reported and when, go to: <https://www.albertahealthservices.ca/info/Page16187.aspx>.
- Alberta will continue to monitor evidence as it is available and if warranted, additional doses may be recommended for other populations in future. Details will be provided at that time.

### Third dose for immunocompromised individuals

- Immunocompromised individuals who were eligible for second doses at the product monograph interval are the same ones who are now eligible for a third dose. This includes those ages 12-17. Effective September 21, the province has expanded eligibility for to more immunocompromised individuals to align with recent recommendations made by the National Advisory Committee on Immunization. Eligible individuals now include:
  - Transplant recipients, including solid organ transplants and hematopoietic stem cell transplants
  - Individuals with malignant hematologic disorders and non-hematologic malignant solid tumors prior to receiving or receiving active treatment (chemotherapy, targeted therapies, immunotherapy or having received previous COVID-19 vaccines while on active treatment), excluding individuals receiving solely hormonal therapy, radiation therapy or a surgical intervention
  - Individuals being treated with an anti-CD20 monoclonal antibody such as Rituximab
  - Individuals with chronic kidney disease on dialysis
  - Recipients of chimeric antigen receptor (CAR)-T-cell therapy.
  - Individuals with moderate to severe primary immunodeficiency (e.g., DiGeorge syndrome, Wiskott-Aldrich syndrome).
  - Individuals with Stage 3 or advanced HIV infection and those with acquired

immunodeficiency syndrome

- Individuals undergoing immunosuppressive therapies (e.g., anti-B cell therapies, high-dose systemic corticosteroids, alkylating agents, antimetabolites, or tumor-necrosis factor (TNF) inhibitors and other biologic agents).
- Individuals in these groups can receive their third dose at a minimum of eight weeks following their second dose.
- All eligible immunocompromised individuals can immediately book appointments to receive additional dose(s) of vaccine by calling 811 or contacting participating pharmacies or physicians' offices. Albertans can book appointments online beginning September 1. An honor system will be used for eligibility, which is the same process used earlier in the immunization program.

### Current evidence regarding immunocompromised people

- Immunocompromised people are more likely to have no or poorer immune responses after two doses of the Pfizer or Moderna vaccines compared to the rest of the population, potentially increasing the risk of breakthrough infections.
- Emerging and observational data in adults suggest that an additional mRNA COVID19 vaccine dose in immunocompromised people may improve their chances of developing a stronger immune response.
- One study examining the humoral response of 101 solid-organ transplant recipients who were given three doses of Pfizer showed that administration of a third dose significantly improved the immunogenicity of the vaccine, with no cases of COVID-19 reported in any of the patients (<https://www.acpjournals.org/doi/10.7326/L21-0282>)
- For more details on current evidence related to an additional dose of mRNA COVID-19 vaccine following a primary series in immunocompromised people, see: <https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2021-08-13/02-COVID-Dooling-508.pdf>

### Clinical considerations

- As with all vaccine administration, immunizers must receive informed consent from the adult requesting an additional dose prior to immunization to ensure they understand the risks vs. benefits of additional doses.
- Before receiving the third dose, immunocompromised individuals with the conditions specified above may talk to their healthcare provider about their medical condition and any advantages or disadvantages of receiving an additional dose of vaccine.
- Even after a third dose it will be important for health care professionals to support and encourage immunocompromised patients/clients to continue to maintain COVID-19 disease prevention measures such as masking and physical distancing. Household members and close relatives of immunocompromised individuals should be encouraged to receive the primary series of COVID-19 vaccine, if they haven't already.
- Serologic testing or cellular immune testing to assess immune response and guide clinical care (e.g., need for an additional dose) is not recommended at this time.
- Pediatric immunocompromised population: mRNA COVID-19 vaccines are associated with rare but serious adverse events, including anaphylaxis as well as myocarditis and

pericarditis in young adults. The impact of immunocompromising conditions on these rare events is not yet known and there have not yet been any safety studies of an additional mRNA dose in immunocompromised adolescents.

### Third dose for seniors in congregate living facilities

- To help boost immune response against COVID-19, third doses are also now recommended for all residents in seniors' congregate living facilities including long-term care facilities, designated supportive living facilities and in seniors' lodges.
- The third dose can be administered at a minimum of five months following a second dose.
- Alberta Health Services, along with immunizing partners, will facilitate the administration of third doses to all residents in seniors' congregate living facilities following the approach used for administration of the primary series.

### Current evidence

- Small but growing numbers of breakthrough cases in fully vaccinated individuals are of increasing concern in Alberta and around the world.
- Ongoing studies in Israel, the first country to vaccinate most of their population early in 2021, show that antibodies, especially in older people, begin to wane after 6 to 8 months. It should be noted however that in Israel, a shorter interval between a first and second dose was used than in Alberta, which may impact immune response and duration.
- The US CDC is monitoring nationwide vaccine breakthrough resulting in hospitalization or death and reports that, among these cases, 74% were among persons aged  $\geq 65$  years.
- Analysis of nursing home COVID-19 data from the CDC's National Healthcare Safety Network found that two doses of mRNA vaccines were 74.7% effective against infection among nursing home residents early in the vaccination program (March–May 2021). During June–July 2021, when the Delta variant circulation predominated, effectiveness declined significantly to 53.1%. (<https://www.cdc.gov/mmwr/volumes/70/wr/mm7034e3.htm>)
- For more details on current evidence related to an additional dose of mRNA COVID-19 vaccine following a primary series in seniors, go to [https://www.whitehouse.gov/wp-content/uploads/2021/08/COVID-Press-Briefing\\_18Aug2021-v1.pdf](https://www.whitehouse.gov/wp-content/uploads/2021/08/COVID-Press-Briefing_18Aug2021-v1.pdf)
- Preliminary Alberta data on breakthrough cases in fully immunized elderly Albertans show that since July 1, breakthrough infection rates for those above 75 are more than triple than those below 75 years of age. For more Alberta-specific data on COVID-19 cases, including vaccine outcomes, go to <https://www.alberta.ca/stats/covid-19-alberta-statistics.htm#vaccinations>

### Additional Dose(s) of COVID-19 Vaccine for Travel

- Although in Canada, anyone who has received two doses of a Health Canada-approved vaccine is considered fully immunized, this is not the case in all jurisdictions. Because of this, Alberta is also moving forward with making additional doses of mRNA COVID 19 vaccine available to Albertans who have received a vaccine series that is not currently recognized in a jurisdiction to which they are travelling. This includes complete AZ/Covishield series or a mixed series.

- All eligible travellers can immediately book appointments to receive additional dose(s) of vaccine at a minimum of 28 days after their second dose by calling 811 or contacting participating pharmacies or physicians' offices. Albertans can book appointments online beginning September 1.

### Clinical Considerations

- Receiving an additional dose for travel purposes is not considered clinically necessary. However, for those who followed recommendations to take the first dose available to them, and as a result received a mixed schedule, it is reasonable to not disadvantage those who are unable to travel for work purposes or compassionate reasons because of the type of vaccine they received.
- Proof of travel is not required to receive additional doses of vaccine, however only those who received a mixed series or AstraZeneca/Covishield vaccine are eligible.
- Informed Consent: The immunizer must receive informed consent from the adult requesting an additional dose(s) prior to immunization to ensure they understand the risks vs. benefits of additional doses. Informed consent must include information that:
  - an extra dose for travel purposes is not required to ensure their individual protection against COVID-19 infection, and
  - adverse effects after a third dose are not well understood.
- Some Albertans may require only one additional dose (e.g. those who received a mixed vaccine series). Some Albertans may require two additional doses if they received two doses of a vaccine not accepted for travel by certain countries (e.g., AstraZeneca in the United States). It is up to the traveler to know the COVID-19 vaccine requirements for their destination.
- It is recommend the third dose be given at least 28 days after the second dose and 28 days after the third dose, if a fourth dose is needed.
- The table below can guide healthcare practitioners in determining the number of doses required for travel purposes

Guidance for Healthcare Practitioners- Doses for travel purposes	
Immunization series completed	Doses that can be offered for travel purposes (Follow the recommended interval between doses)
Person has received 2 doses of the same mRNA vaccine	No additional dose can be provided
Person has received 1 or 2 doses of COVISHIELD	Give 2 doses of an mRNA vaccine at least 28 days apart
Person has received 1 or 2 doses of AstraZeneca	Give 2 doses of an mRNA vaccine at least 28 days apart
Person has received a mixed schedule of two different vaccines that <b>are not</b> mRNA vaccines (e.g., COVISHIELD/AstraZeneca mix)	Give 2 doses of an mRNA vaccine at least 28 days apart

Person has received a mixed schedule of two different vaccines where one dose was an mRNA vaccine (e.g., AstraZeneca/Pfizer)	Give 1 dose of the mRNA vaccine already given at least 28 days from the last COVID vaccine dose
Person has received 2 different doses of an mRNA vaccine (i.e., Pfizer and Moderna)	Give 1 dose of an mRNA vaccine already given at least 28 days from the last COVID vaccine dose.
Person has received 2 doses of a vaccine in the context of a clinical study for a vaccine not yet authorized (e.g., Medicago)	Give 2 doses of an mRNA vaccine at least 28 days from the last COVID vaccine dose.