

# Canadian Rheumatology Association Position Statement on COVID-19 Vaccination

Version 5.0 September 27, 2021

## **Highlights of Changes:**

 Updated to include addition of Moderna vaccine to recommendations for individuals between 12 and 18 years old; and for advocacy for third dose in immunosuppressed patients.

There are currently four COVID-19 vaccines approved by Health Canada: two mRNA vaccines (Pfizer-BioNTech and Moderna); and two viral vector vaccines (AstraZeneca [Oxford; Serum Institute of India] and Johnson & Johnson). The goal of the Health Canada vaccination campaign is to have the majority of Canadians vaccinated.

The Canadian Rheumatology Association (CRA) provides the following updated recommendations regarding the COVID-19 vaccine for patients with rheumatic diseases:

- Patients not yet vaccinated should be encouraged to receive any of the Health Canada approved vaccines as soon as possible. Patients should be counseled about vaccine benefits and safety, and also for potentially lower vaccine response in those who are immunosuppressed. Even after vaccination, patients, particularly those who are immunosuppressed, will need to continue to follow all current public health guidelines to protect themselves against COVID-19.
- 2. In addition to the above, individuals between 12 and 18 years of age are only eligible for the Pfizer-BioNTech or Moderna COVID-19 vaccines. Studies are still ongoing for the younger age groups.
- 3. There is presently insufficient data to make a recommendation of whether DMARDs should be withheld at any point during the COVID-19 vaccination schedule. Studies on influenza vaccination have suggested that withholding two doses of methotrexate following vaccination improves vaccine response. It is unclear if this holds true for the COVID-19 vaccine or for other DMARDs. Concerns for potential disease flare should be considered when making these decisions.
- 4. Decreased immune response to two doses of mRNA COVID-19 vaccines has been consistently observed in patients treated with anti-CD20 agents (e.g. rituximab), mycophenolic acid and/or glucocorticoids (moderate/high doses). A third dose of an mRNA vaccine, at least four weeks after the second dose, can improve this response. Therefore, the CRA advocates for prioritized access to a third dose in all patients (≥ 12 yo) on these medications. A third dose should also be considered in patients on other immunosuppressive treatments particularly in patients on abatacept, JAK inhibitors, and antimetabolites (e.g. methotrexate) where decreased immune response was seen in some studies. Although studies suggest no significant impact on the immune response to the vaccine in patients treated with anti-TNFs for rheumatic diseases, studies in inflammatory bowel disease indicate a reduced response. A third dose in patients



with rheumatic disease on anti-TNFs can be considered, particularly if on higher doses. Data are not yet available on the immune response from viral vector vaccines in immunosuppressed individuals.

- 5. Serological testing for vaccine response is not recommended at this time given uncertainties in the interpretation of lab testing.
- 6. Any public health recommendations should take into consideration immunocompromised individuals in the population who may not be adequately immunized despite vaccination.

The CRA acknowledges the eligibility criteria suggested by the National Advisory Committee on Immunization (NACI) for third doses. It also recognizes that there may be provincial variability regarding vaccine availability and vaccine recommendations for the third dose.

Rheumatology patients should not be disadvantaged in receiving the COVID-19 vaccine because of diagnosis, treatment, where they live or because of an access issue due to a disability. The CRA shares the same goal as NACI and Health Canada in wanting to achieve equitable access to the COVID-19 vaccine and therefore highlights the importance of this issue.

For pregnant and breastfeeding women, please see SOGC recommendations below.

This statement will be updated as more information becomes available.

### References

#### Health Canada:

https://www.canada.ca/en/public-

health/services/immunization/national-advisory-committee-on-

immunization-naci/recommendations-use-covid-19-vaccines/mrna-

adolescents/summary.html

https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-

on-immunization-naci/summary-september-10-2021-additional-dose-covid-19-vaccine-

immunocompromised-following-1-2-dose-

series.html?hg e=el&hg m=2190151&hg l=2&hg v=5d85304092

https://www.canada.ca/content/dam/phac-

aspc/documents/services/immunization/national-advisory-committee-

on-immunization-naci/recommendations-use-covid-19-

vaccines/recommendations-use-covid-19-vaccines-en.pdf

Centers for Disease Control and Prevention:

https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/immuno.html

Comité sur l'immunisation du Québec:

https://www.msss.gouv.qc.ca/professionnels/vaccination/piq-vaccins/covid-19-vaccin-a-arn-messager-contre-la-covid-19/



https://www.msss.gouv.qc.ca/professionnels/vaccination/piq-vaccins/covid-19-vv-vaccins-a-vecteur-viral-contre-la-covid-19/

https://www.inspq.qc.ca/sites/default/files/publications/3163-pertinence-dose-additionnelle-vaccin-covid-19-immunodeprimes.pdf

## Ministry of Health Ontario:

https://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/vaccine/COVI D-19 vaccine third dose recommendations.pdf

#### SOGC:

https://sogc.org/common/Uploaded%20files/Latest%20News/SOGC\_Statement\_COVID-19\_Vaccination\_in\_Pregnancy.pdf

British Society for Rheumatology:

https://www.rheumatology.org.uk/practice-quality/covid-19-guidance

Mehta P, Sanchez E, Moraitis E, et al. Influenza vaccination and interruption of methotrexate in adult patients in the COVID-19 era: an ongoing dilemma. Lancet Rheumatol. 2021. PMID: 33521669

Strangfeld A, Schäfer M, Gianfrancesco MA, et al; COVID-19 Global Rheumatology Alliance. Factors associated with COVID-19-elated death in people with rheumatic diseases: results from the COVID-19 Global Rheumatology Alliance physician-reported registry. Ann Rheum Dis. 2021;80(7):930-942.

Boyarsky BJ, Werbel WA, Avery RK, et al. Immunogenicity of a Single Dose of SARS-CoV-2 Messenger RNA Vaccine in Solid Organ Transplant Recipients. JAMA. 202;325(17):1784-1786.

Haberman RH, Herati R, Simon D, et al. Methotrexate hampers immunogenicity to BNT162b2 mRNA COVID-19 vaccine in immune-mediated inflammatory disease. Ann Rheum Dis. 2021; 80(10):1339-1344.

Boyarsky B, Ruddy JA, Connolly CA, et al. Antibody response to a single dose of SARS-CoV-2 mRNA vaccine in patients with rheumatic and musculoskeletal diseases. Ann Rheum Dis. 2021 Mar 23;annrheumdis-2021-220289.

Braun-Moscovici Y, Kaplan M, Braun M, et al. Disease activity and humoral response in patients with inflammatory rheumatic diseases after two doses of the Pfizer mRNA vaccine against SARS-CoV-2. Ann Rheum Dis. 2021;80(10):1317-1321.

Deepak P, Kim W, Paley MA, et al. Glucocorticoids and B Cell Depleting Agents Substantially Impair Immunogenicity of mRNA Vaccines to SARS-CoV-2. medRxiv. 2021 Apr 9;2021.04.05.21254656. doi: 10.1101/2021.04.05.21254656. Preprint

Ammitzbøll C, Bartels LE, Bøgh Andersen J, et al. Impaired Antibody Response to the BNT162b2 Messenger RNA Coronavirus Disease 2019 Vaccine in Patients With Systemic Lupus Erythematosus and Rheumatoid Arthritis.ACR Open Rheumatol. 2021 Sep;3(9):622-628. doi: 10.1002/acr2.11299. Epub 2021 Jul 17.

Kennedy NA, Lin S, Goodhand JR, et al. Infliximab is associated with attenuated immunogenicity to BNT162b2 and ChAdOx1 nCoV-19 SARS-CoV-2 vaccines in patients with IBD. Gut 2021. Epub ahead of



print. doi:10.1136/ gutjnl-2021-324789

Chanchlani N, Lin S, Chee D, et al. T. Adalimumab and infliximab impair SARS-CoV-2 antibody responses: results from a therapeutic drug monitoring study in 11422 biologic-treated patients. J Crohns Colitis. 2021 Sep 2:jjab153. doi: 10.1093/ecco-jcc/jjab153. Online ahead of print.

Muller L, Andrée M, Moskorz W, et al. Age-dependent immune response to the BioNTech/ Pfizer BNT162b2 COVID-19 vaccination. Clin Infect Dis 2021:ciab381. doi: 10.1093/cid/ciab381. Online ahead of print.

Kamar N, Abravanel F, Marion O, et al. Three Doses of an mRNA Covid-19 Vaccine in Solid-Organ Transplant Recipients. NEJM. 2021;385(7):661-662.

Benotmane I, Gautier G, Perrin P, et al. Antibody Response After a Third Dose of the mRNA-1273 SARS-CoV-2 Vaccine in Kidney Transplant Recipients With Minimal Serologic Response to 2 Doses. JAMA. 2021 Jul 23. doi: 10.1001/jama.2021.12339. Online ahead of print.

Bernal JL, Andrews N, Gower C, et al. Effectiveness of Covid-19 Vaccines against the B.1.617.2 (Delta) Variant. NEJM. 2021;385(7):585-594.