



Cancer Patients and the COVID-19 Vaccine

Is the COVID-19 vaccine safe for cancer patients?

The two types of COVID-19 vaccines – mRNA and vector based – are considered safe for cancer patients and immunosuppressed patients.

Both of the vaccines currently available in Canada have been shown to be safe and effective in the general population. However, there is limited evidence in cancer and immunocompromised patients. Therefore, the advice provided at this time is based on the best evidence currently available. The recommendations will be revised as new evidence becomes available.

Should patients on active treatment for cancer receive the COVID-19 vaccine?

Yes, however the timing of the vaccination for various therapies is outlined below. Patients with cancer may have a diminished immune response to the vaccine. The effectiveness of the vaccine will depend on the patient's ability to respond to the vaccine, which in turn will depend on other factors like age, co-morbidities, type and stage of cancer, and type and timing of immunosuppressive therapy.

What is the optimal timing for the COVID-19 vaccine in cancer patients on treatment?

The following guidelines on the timing of COVID-19 vaccine have been adapted from information from inactivated influenza and other vaccines in immunocompromised patients.

Chemotherapy

- **Start of new treatment:** If possible, vaccination should be completed at least two weeks before starting systemic therapy or immunosuppressive therapy. If both doses of the vaccine cannot be given before the start of treatment, the first dose should be given two weeks before starting treatment. The second dose should be given four to five days before the next cycle.
- **Patients already on chemotherapy treatment:** Ideally a vaccine dose would be given four to five days before a dose of chemotherapy so that vaccine side effects and chemotherapy side effects don't overlap.

Immune checkpoint inhibitors: Patients must speak with their cancer care team before receiving the vaccine to determine if the potential risk of vaccination is outweighed by the benefit.

B-Cell directed therapy (anti CD 20, CD 19 -, CD 22 antibodies and BTK inhibitors): Vaccination should be postponed until six months after treatment due to the decreased ability to develop immunity to COVID-19 by vaccination.

T-Cell directed therapy (Calcineurin inhibitors, ATG or Alemtuzumab): Vaccination should be postponed until three months after treatment due to the decreased ability to develop immunity to COVID-19 by vaccination.

Targeted and hormonal treatments: The vaccine can be given at any time during treatment.

Radiation therapy: The vaccine can be given at any time during radiation therapy.

Hematopoietic Stem Cell Transplant (HSCT)

- **Blood and bone marrow stem cell transplant (autologous or allogeneic):** Patients must speak with their cancer care team before receiving the vaccine. If possible, the vaccine should be given two weeks before admission to hospital for stem cell transplant.
- **Post-transplant:** If community transmission of COVID-19 is high, vaccination can be started three months after HSCT. If community transmission is controlled, vaccination can wait until six months after HSCT. Vaccination should be postponed in severe, uncontrolled acute graft versus host disease.

Should cancer survivors have the COVID-19 vaccine?

Yes, cancer survivors should be vaccinated against COVID-19 if there are no contraindications to receiving vaccine.