



**NOTE:** This table is intended to be used by Healthcare Professionals to assess clients with the following conditions who live or work in high-risk environments.

Condition	Recommendations	Script
<b>Breastfeeding</b>	<ul style="list-style-type: none"> <li>If the client at high risk of exposure to COVID-19, they are recommended to receive and/or complete a full COVID-19 vaccine series.</li> <li>NACI recommends that a complete vaccine series with a COVID-19 vaccine may be offered to individuals in the authorized age group who are breastfeeding, if a risk assessment deems that the benefits outweigh the potential risks for the individual and the infant, and if informed consent includes discussion about the absence of evidence on the use of COVID-19 vaccine in this population.</li> </ul> <p><b>NACI Summary of evidence and rationale:</b></p> <ul style="list-style-type: none"> <li>Currently, there are no data on the safety and efficacy of COVID-19 vaccines in pregnancy or during breastfeeding. Pregnant or breastfeeding individuals were excluded from the mRNA COVID-19 vaccine clinical trials.</li> <li>It is unknown whether the vaccines are excreted in human milk, but there are no data on outcomes in breastfeeding individuals or their breastfed infants. There have been no theoretical concerns about these vaccines in breastfeeding individuals or their breastfed infants.</li> <li>Currently, there are limited data on the safety of COVID-19 vaccine from animal developmental and reproductive toxicity studies. In rats that received the Moderna COVID-19 vaccine prior to or during gestation, no safety concerns regarding female reproduction, fetal/embryonal development, or postnatal development were demonstrated. Developmental and Reproductive Toxicity (DART) animal studies for the Pfizer-BioNTech COVID-19 vaccine are ongoing.</li> <li>Individuals who are pregnant, breastfeeding, or of reproductive age may be at increased risk of exposure to SARS-CoV-2 (e.g., healthcare or essential workers) and/or at increased risk of severe COVID-19 disease (e.g., due to pre-existing medical condition, body mass index of 40 or more) and may wish to be vaccinated despite the lack of evidence of COVID-19 vaccination in pregnancy or during breastfeeding in order to protect themselves. Therefore, the balance of benefits and risks must be made on a case-by-case basis.</li> <li>Eligible individuals should be offered a complete vaccine series with an authorized COVID-19 vaccine post-partum so that the recommended interval between completion of the vaccine series and conception is maintained.</li> <li>The SOGC (Society of Obstetricians and Gynaecologists of Canada) Statement on COVID-19 Vaccination in Pregnancy Consensus Statement: For individuals who are at high risk of infection and/or morbidity from COVID-19, it is the SOGC's position that the documented risk of not getting the COVID-19 vaccine outweighs the theorized and undescribed risk of being vaccinated during pregnancy or <b>while breastfeeding</b> and vaccination should be offered.</li> </ul>	<p><b>If client consents to immunization, ensure they sign the appropriate benefit/risk information form.</b></p> <ul style="list-style-type: none"> <li>Do you live or work in a high-risk environment for exposure to COVID-19?</li> <li>Have you discussed the benefits and risks of the COVID-19 vaccine during breastfeeding with your healthcare provider? <b>(Review recommendations and proceed with script).</b></li> <li>There are few studies about the efficacy or safety regarding COVID-19 vaccines given to breastfeeding women or their breastfeeding infants. It is unknown whether COVID-19 vaccine is passed on in breastmilk, thus risk to the newborn/infant cannot be excluded.</li> <li>For individuals who are at high risk of infection and/or morbidity from COVID-19, it is the Society of Obstetricians and Gynecologists of Canada's position that the documented risk of not getting the COVID-19 vaccine outweighs the theorized and undescribed risk of being vaccinated while breastfeeding and vaccination should be offered.</li> <li>Getting the COVID-19 vaccine is not a reason to stop breastfeeding.</li> <li>Do you have any additional questions or concerns about getting immunized with the COVID-19 vaccine?</li> <li>Do you consent to being immunized with the (Brand) of COVID-19 vaccine?</li> </ul>
<b>Pregnancy</b>	<ul style="list-style-type: none"> <li>NACI recommends that a complete vaccine series with a COVID-19 vaccine may be offered to pregnant individuals in the authorized age group if a risk assessment deems that the benefits outweigh the potential risks for the individual and the fetus, and if informed consent includes</li> </ul>	<p><b>If client consents to immunization, ensure they sign the appropriate benefit/risk information form.</b></p> <ul style="list-style-type: none"> <li>Do you live or work in a high-risk environment</li> </ul>



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	<p>discussion about the absence of evidence on the use of COVID-19 vaccine in this population.</p> <p><b>NACI Summary of evidence and rationale:</b></p> <ul style="list-style-type: none"> <li>○ The evidence of pregnancy as an independent risk factor for severe COVID-19 is evolving.</li> <li>○ Currently, there are no data on the safety and efficacy of COVID-19 vaccines in pregnancy or during breastfeeding. Pregnant or breastfeeding individuals were excluded from the mRNA COVID-19 vaccine clinical trials.</li> <li>○ Currently, there are no data to inform outcomes of inadvertent administration of COVID-19 vaccine to pregnant individuals or their developing fetus in clinical trials. Outcomes in participants who became pregnant during the clinical trials and fetal outcomes will be reported through registries and NACI will reconsider recommendations when these data become available.</li> <li>○ Currently, there are limited data on the safety of COVID-19 vaccine from animal developmental and reproductive toxicity studies. In rats that received the Moderna COVID-19 vaccine prior to or during gestation, no safety concerns regarding female reproduction, fetal/embryonal development, or postnatal development were demonstrated. Developmental and Reproductive Toxicity (DART) animal studies for the Pfizer-BioNTech COVID-19 vaccine are ongoing.</li> <li>○ Individuals who are pregnant, breastfeeding, or of reproductive age may be at increased risk of exposure to SARS-CoV-2 (e.g., healthcare or essential workers) and/or at increased risk of severe COVID-19 disease (e.g., due to pre-existing medical condition, body mass index of 40 or more) and may wish to be vaccinated despite the lack of evidence of COVID-19 vaccination in pregnancy or during breastfeeding in order to protect themselves. Therefore, the balance of benefits and risks must be made on a case-by-case basis.</li> <li>○ There is currently no evidence to guide the time interval between the completion of the COVID-19 vaccine series and conception. In the face of scientific uncertainty, it may be prudent to delay pregnancy by 28 days or more after the administration of the complete two-dose vaccine series of an mRNA COVID-19 vaccine. An mRNA COVID-19 vaccine may be administered anytime after pregnancy.</li> <li>○ <b>Individuals who become pregnant during their vaccine series or shortly thereafter should not be counselled to terminate pregnancy based on having received the mRNA vaccine.</b></li> <li>○ <b>If pregnancy is determined after initiation of the vaccination series, completion of the series may be delayed until after pregnancy, unless risk factors for increased exposure or severe COVID-19 are present and informed consent for vaccination is obtained as above.</b> NACI also encourages additional research and surveillance of COVID-19 vaccination in pregnancy.</li> <li>○ Eligible individuals should be offered a complete vaccine series with an authorized COVID-19 vaccine post-partum and prior to attempting pregnancy so that the recommended interval between completion of the vaccine series and conception is maintained.</li> <li>• The SOGC (Society of Obstetricians and Gynaecologists of Canada) Statement on COVID-19 Vaccination in Pregnancy Consensus Statement: For individuals who are at high risk of infection</li> </ul>	<p>for exposure to COVID-19?</p> <ul style="list-style-type: none"> <li>• Pregnant women at risk should be offered the COVID-19 vaccine.</li> <li>• Have you discussed the benefits and risks of the COVID-19 vaccine during pregnancy with your healthcare provider? <b>(Review recommendations and proceed with script).</b></li> <li>• There are few studies about the efficacy or safety about the COVID-19 vaccines given to pregnant women.</li> <li>• For individuals who are at high risk of infection and/or morbidity from COVID-19, it is the Society of Obstetricians and Gynecologists of Canada's position that the documented risk of not getting the COVID-19 vaccine outweighs the theorized and undescribed risk of being vaccinated during pregnancy and vaccination should be offered.</li> <li>• Do you have any additional questions or concerns about getting immunized with the COVID-19 vaccine?</li> <li>• Do you consent to being immunized with the (Brand) of COVID-19 vaccine?</li> </ul>



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	<p>and/or morbidity from COVID-19, it is the SOGC's position that the documented risk of not getting the COVID-19 vaccine outweighs the theorized and undescribed risk of being vaccinated <b>during pregnancy</b> or while breastfeeding and vaccination should be offered.</p> <ul style="list-style-type: none"> <li>• Informed consent must include discussion about the insufficient evidence on safety and efficacy in this population.</li> <li>• Reinforce side effects and treat even mild fever during pregnancy.</li> <li>• Being unknowingly pregnant and receiving the COVID-19 vaccine is not a reason to terminate the pregnancy.</li> </ul>	
<b>Immunocompromised</b> <b>See section below for cancer / Oncology patients</b>	<ul style="list-style-type: none"> <li>• <b>ALL TRANSPLANT PATIENTS must consult their specialists prior to immunizing.</b></li> <li>• It is preferred that all other clients with immune suppression discuss the vaccine with their healthcare provider prior to presenting. <b>However:</b> <ul style="list-style-type: none"> <li>○ If they have not discussed vaccination with their healthcare provider <b>AND</b> their <b>condition is UNSTABLE</b> consult with the area MHO.</li> <li>○ If they have not discussed vaccination with their healthcare provider <b>AND</b> their <b>condition is stable</b> proceed as below.</li> </ul> </li> <li>• NACI recommends that a complete COVID-19 vaccine series may be offered to individuals who are immunosuppressed due to disease or treatment in the authorized age group in this population, if a risk assessment deems that the benefits outweigh the potential risks for the individual, and if informed consent includes discussion about the absence of evidence on the use of COVID-19 vaccine in this population.</li> </ul> <p><b>NACI Summary of evidence and rationale:</b></p> <ul style="list-style-type: none"> <li>○ Currently, there is limited evidence that immunosuppression is an independent risk factor for severe COVID-19, though evidence is evolving.</li> <li>○ Currently, there are no data on COVID-19 vaccination in individuals who are immunosuppressed. Participants in the mRNA COVID-19 vaccine clinical trials only included individuals who were not immunosuppressed, such as those with stable infection with human immunodeficiency virus (HIV), and those not receiving immunosuppressive therapy during the trial.</li> <li>○ No safety signals of concern have been noted to date in non-immunosuppressed participants with an immunocompromising condition (e.g., stable HIV infection) included in the clinical trials.</li> <li>○ The relative degree of immunodeficiency in individuals who are immunocompromised is variable depending on the underlying condition, the progression of disease and use of medications that suppress immune function. Therefore, the balance of benefits and risks must be made on a case-by-case basis.</li> <li>○ Immunocompromised persons, including individuals receiving immunosuppressant therapy, may have a diminished immune response to the vaccine.</li> <li>○ In general, non-replicating vaccines may be administered to immunocompromised people</li> </ul>	<p><b>If client consents to immunization, ensure they sign the appropriate benefit/risk information form.</b></p> <ul style="list-style-type: none"> <li>• Do you live or work in a high-risk environment for exposure to COVID-19?</li> <li>• Have you discussed the benefits and risks of the COVID-19 vaccine with your healthcare provider? <b>(Review recommendations and proceed with script).</b></li> <li>• A client who is medically stable does not need to defer immunization with a COVID-19 vaccine, even if not discussed with their healthcare provider.</li> <li>• Currently, there are no data on COVID-19 vaccination in individuals who are immunosuppressed.</li> <li>• The vaccine antibody response in immune compromised individuals may not be as strong as the immune response in individuals who are not immune suppressed. Immunized individuals still need to take precautions against COVID-19 disease.</li> <li>• Do you have any additional questions or concerns about getting immunized with the COVID-19 vaccine?</li> <li>• Do you consent to being immunized with the (Brand) of COVID-19 vaccine?</li> </ul>



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	<p>because the antigens in the vaccine cannot replicate. However, the magnitude and duration of vaccine-induced immunity are often reduced. It is currently unknown whether immunocompromised individuals will be able to mount an immune response to mRNA vaccines.</p> <ul style="list-style-type: none"> <li>People living with HIV that are considered immunocompetent may be vaccinated.</li> <li>The amount of protection may not be as high. Advise to ensure they still need to take precautions against COVID – 19 disease.</li> </ul>	
<b>Immune suppressed</b> <b>Oncology</b> <b>Patients</b>	<ul style="list-style-type: none"> <li><b>Cancer survivors should be vaccinated against COVID-19 if there are no contraindications to receiving vaccine. Vaccinate as any other client who does not have a precaution or contraindication and a benefit/risk form does not need to be completed.</b></li> <li>It is preferred that all other clients with cancer discuss the vaccine with their healthcare provider prior to presenting. <b>However:</b> <ul style="list-style-type: none"> <li>If they have not discussed vaccination with their healthcare provider <b>AND</b> their <b>condition is UNSTABLE, consult</b> with the area MHO.</li> <li>If they have not discussed vaccination with their healthcare provider <b>AND</b> their <b>condition is STABLE</b> proceed as below.</li> </ul> </li> <li>mRNA and vector based vaccine technology is deemed safe in cancer and immunosuppressed patients.</li> <li>NACI recommends that a complete COVID-19 vaccine series may be offered to individuals who are immunosuppressed due to disease or treatment in the authorized age group in this population, if a risk assessment deems that the benefits outweigh the potential risks for the individual, and if informed consent includes discussion about the absence of evidence on the use of COVID-19 vaccine in this population.</li> <li><b>NACI RATIONALE</b> <ul style="list-style-type: none"> <li>Currently, there is limited evidence that immunosuppression is an independent risk factor for severe COVID-19, though evidence is evolving.</li> <li>Currently, there are no data on COVID-19 vaccination in individuals who are immunosuppressed. Participants in the mRNA COVID-19 vaccine clinical trials only included individuals who were not immunosuppressed, such as those with stable infection with human immunodeficiency virus (HIV), and those not receiving immunosuppressive therapy during the trial.</li> <li>The relative degree of immunodeficiency in individuals who are immunocompromised is variable depending on the underlying condition, the progression of disease and use of medications that suppress immune function. Therefore, the balance of benefits and risks must be made on a case-by-case basis.</li> <li>Immunocompromised persons, including individuals receiving immunosuppressant therapy, may have a diminished immune response to the vaccine.</li> <li>In general, non-replicating vaccines may be administered to immunocompromised people</li> </ul> </li> </ul>	<p><b>If client consents to immunization, ensure they sign the appropriate benefit/risk information form.</b></p> <ul style="list-style-type: none"> <li>Do you live or work in a high-risk environment for exposure to COVID-19?</li> <li>Have you discussed the benefits and risks of the COVID-19 vaccine with your healthcare provider? <b>(Review recommendations and proceed with script).</b></li> <li>A client who is medically stable does not need to defer immunization with a COVID-19 vaccine, even if not discussed with their healthcare provider.</li> <li>Currently, there are no data on COVID-19 vaccination in individuals who are immunosuppressed.</li> <li>The vaccine antibody response in immune comprised individuals may not be as strong as the immune response in individuals who are not immune suppressed. Immunized individuals still need to take precautions against COVID–19 disease.</li> <li><b>Based on your therapy the recommendation is as follows: refer to treatments 1 – 7 in second column.</b></li> <li>Do you have any additional questions or concerns about getting immunized with the COVID-19 vaccine?</li> <li><b>(If the treatment plan in second column supports immunization)</b> Do you consent to being immunized with the (Brand) of COVID-19</li> </ul>



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	<p>because the antigens in the vaccine cannot replicate. However, the magnitude and duration of vaccine-induced immunity are often reduced. It is currently unknown whether immunocompromised individuals will be able to mount an immune response to mRNA vaccines.</p> <ul style="list-style-type: none"> <li>According to the SK Cancer Agency (Jan. 2021), both of the two currently available vaccines in Canada have been shown to be safe and effective in the general population. <b>There is limited evidence in cancer and immunocompromised patients; therefore, the advice below is based on the best available evidence at this time. The recommendations will be revised as new evidence becomes available.</b></li> <li><b>Patients with cancer may have diminished immune response to vaccine.</b> Efficacy will depend on the patient's ability to mount a response to the vaccine, which in turn will depend on multiple factors like age, comorbidities, type and stage of cancer, type and timing of immunosuppressive therapy</li> <li><b>What is the optimal timing for COVID-19 vaccine in cancer patients on treatment?</b> The following guidelines on the timing of COVID-19 vaccine has been adapted from the information from inactivated influenza and other vaccines in immunocompromised patients. <b>If client's therapy is:</b> <ol style="list-style-type: none"> <li><b><u>Targeted and Hormonal treatments:</u></b> Vaccine can be administered at any time during treatment.</li> <li><b><u>Radiation therapy:</u></b> Vaccine can be administered at any time during radiation therapy.</li> <li><b><u>Cytotoxic chemotherapy</u></b> <ol style="list-style-type: none"> <li><b><u>New treatment starts:</u></b> if possible, vaccination <b>should be completed at least two weeks prior to starting systemic therapy or immunosuppressive therapy.</b> If both of the doses cannot be given prior to starting treatment, at least the first dose of vaccine should be given two weeks before starting treatment. The second dose should be administered 4-5 days prior to the next cycle.</li> <li><b><u>Patients already on chemotherapy treatment:</u></b> Ideally a vaccine dose would be administered 4-5 days prior to a dose of cytotoxic chemotherapy so that vaccine side effects and chemotherapy side effects don't overlap.</li> </ol> </li> <li><b><u>B-Cell directed therapy ((Anti CD 20 (rituximab, obinotuzimab), CD 19 – (blinatumomab), CD 22 antibodies (inotuzumab) and BTK inhibitors (ibrutinib)):</u></b> Vaccination should be <b>postponed until 6 months after B- cell directed treatment</b> due to <b>decreased ability to develop immunity</b> to COVID-19 by vaccination. <b>Consult area MHO.</b></li> <li><b><u>T-Cell directed therapy (Calcineurin inhibitors (e.g. oral and injection: cyclosporine and tacrolimus) (e.g. topical: pimecrolimus, tacrolimus), ATG (e.g. antithymocyte globulin – rabbit and equine) or Alemtuzumab)</u></b> Vaccination should be <b>postponed until 3 months after of T- cell directed treatment</b> due to</li> </ol> </li> </ul>	vaccine?



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	<p>decreased ability to develop immunity to COVID-19 by vaccination. <b>Consult area MHO.</b></p> <p>6. <b>Patients on Immune checkpoint inhibitors: (pembrolizumab, nivolumab, atezolizumab)</b> Patients <b>must talk with their oncology team prior to vaccine administration</b> to determine if the potential risk of vaccination is outweighed by the benefits.</p> <p>7. <b>(HSCT) Blood and Bone Marrow Stem Cell Transplant (autologous or allogeneic):</b> <b>Patients must talk with their oncology team prior to vaccine administration.</b> If feasible vaccine should be administered 2 weeks prior to starting conditioning regimen for their transplant. <b>Post-transplant</b> - if transmission in the community is high, vaccination can be initiated 3 months after HSCT. If the transmission in the community is controlled, vaccination can wait until 6 months after HSCT. Postpone vaccination in severe, uncontrolled acute GVHD, grade 3-4.</p>	
<b>Autoimmune conditions</b>  <b>See MS section below</b>	<ul style="list-style-type: none"> <li>• <b>ANY</b> autoimmune condition that involves the <b>NEUROLOGICAL SYSTEM</b> the <b>client must discuss</b> this with the client's primary physician / specialist before immunization is provided.</li> <li>• See table below for a list of common autoimmune conditions.</li> <li>• It is preferred that clients with immune suppression discuss the vaccine with their healthcare provider prior to presenting. <b>However:</b> <ul style="list-style-type: none"> <li>○ If they have not discussed vaccination with their healthcare provider <b>AND</b> their <b>condition is UNSTABLE</b> consult with the area MHO.</li> <li>○ If they have not discussed vaccination with their healthcare provider <b>AND</b> their <b>condition is STABLE</b> proceed as below.</li> </ul> </li> <li>• NACI recommends that a complete vaccine series with a COVID-19 vaccine may be offered to individuals with an autoimmune condition in the authorized age group in these populations if a risk assessment deems that the benefits outweigh the potential risks for the individual, and if informed consent includes discussion about the insufficiency of evidence on the use of COVID-19 vaccine in these populations.</li> </ul> <p><b>NACI Summary of evidence and rationale:</b></p> <ul style="list-style-type: none"> <li>○ Currently, there is limited evidence that having an autoimmune condition is an independent risk factor for severe COVID-19, though evidence is evolving.</li> <li>○ Currently, there are very limited data on COVID-19 vaccination in individuals who have an autoimmune condition. Although participants with autoimmune conditions who were not immunosuppressed were not excluded from trials, they constitute a very small proportion of trial participants and represent a very narrow range of autoimmune conditions.</li> <li>○ The spectrum of autoimmune conditions is diverse. The relative degree of autoimmunity in individuals with autoimmune conditions is variable depending on the underlying condition, the severity and progression of disease and use of medications that impact immune function. Therefore, the balance of benefits and risks must be made on a case-by-case basis.</li> <li>○ Other applications of mRNA technologies have been for the treatment of cancer, which required an immune response directed against an individual's cancer cells. This raised the theoretical</li> </ul>	<p><b>If client consents to immunization, ensure they sign the appropriate benefit/risk information form.</b></p> <ul style="list-style-type: none"> <li>• Do you live or work in a high-risk environment for exposure to COVID-19?</li> <li>• Have you discussed the benefits and risks of the COVID-19 vaccine with your healthcare provider? <b>(Review recommendations and proceed with script).</b></li> <li>• A client who is medically stable does not need to defer immunization with a COVID-19 vaccine, even if not discussed with their healthcare provider.</li> <li>• Currently, there is limited data on COVID-19 vaccination in individuals who have autoimmune conditions. The numbers of individuals with autoimmune conditions in the vaccine studies were very small.</li> <li>• The vaccine antibody response in individuals with autoimmune conditions may not be as strong as the immune response in individuals who do not have an autoimmune condition. The immune response may vary according to condition severity and current medical treatment. Immunized individuals still need to take precautions against COVID-19 disease.</li> <li>• Do you have any additional questions or</li> </ul>





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	<p>concern that mRNA vaccines for infectious diseases would behave similarly, eliciting inflammation and possibly exacerbating existing autoimmune diseases. Current applications of mRNA technology for COVID-19 vaccines have been optimized to reduce this risk.</p> <ul style="list-style-type: none"> <li>Advise to ensure they still need to take precautions against COVID – 19 disease.</li> </ul>	<p>concerns about getting immunized with the COVID-19 vaccine?</p> <ul style="list-style-type: none"> <li>Do you consent to being immunized with the (Brand) of COVID-19 vaccine?</li> </ul>
<b>Autoimmune disorders</b>  <b>MULTIPLE SCLEROSIS</b>	<ul style="list-style-type: none"> <li>It is preferred that clients with Multiple Sclerosis (MS) discuss the vaccine with their healthcare provider prior to presenting. <b>However:</b> <ul style="list-style-type: none"> <li>If they have not discussed vaccination with their healthcare provider <b>AND</b> their <b>condition is UNSTABLE</b> consult with the area MHO.</li> <li>If they have not discussed vaccination with their healthcare provider <b>AND</b> their <b>condition is stable</b> proceed as below.</li> </ul> </li> <li>NACI recommends that a complete vaccine series with a COVID-19 vaccine may be offered to individuals with an autoimmune condition in the authorized age group in these populations if a risk assessment deems that the benefits outweigh the potential risks for the individual, and if informed consent includes discussion about the insufficiency of evidence on the use of COVID-19 vaccine in these populations.</li> </ul> <p><b>NACI Summary of evidence and rationale:</b></p> <ul style="list-style-type: none"> <li>Currently, there is limited evidence that having an autoimmune condition is an independent risk factor for severe COVID-19, though evidence is evolving.</li> <li>Currently, there are very limited data on COVID-19 vaccination in individuals who have an autoimmune condition. Although participants with autoimmune conditions who were not immunosuppressed were not excluded from trials, they constitute a very small proportion of trial participants and represent a very narrow range of autoimmune conditions.</li> <li>The spectrum of autoimmune conditions is diverse. The relative degree of autoimmunity in individuals with autoimmune conditions is variable depending on the underlying condition, the severity and progression of disease and use of medications that impact immune function. Therefore, the balance of benefits and risks must be made on a case-by-case basis.</li> <li>Other applications of mRNA technologies have been for the treatment of cancer, which required an immune response directed against an individual's cancer cells. This raised the theoretical concern that mRNA vaccines for infectious diseases would behave similarly, eliciting inflammation and possibly exacerbating existing autoimmune diseases. Current applications of mRNA technology for COVID-19 vaccines have been optimized to reduce this risk.</li> <li>Some of the Disease Modifying Therapies (DMTs) may decrease vaccine effectiveness. The following treatments will guide the timing of the COVID-19 vaccine:</li> </ul> <ol style="list-style-type: none"> <li>Patients on the following treatments need <b>no alteration to their vaccination timing</b>, and are expected to have little, if any, reduction in vaccine effectiveness: <ul style="list-style-type: none"> <li><b>Glatiramer acetate (any type), interferon-beta (any type), teriflunomide, dimethylfumarate (or</b></li> </ul> </li> </ol>	<p><b>If client consents to immunization, ensure they sign the appropriate benefit/risk information form.</b></p> <ul style="list-style-type: none"> <li>Do you live or work in a high-risk environment for exposure to COVID-19?</li> <li>Have you discussed the benefits and risks of the COVID-19 vaccine with your healthcare provider? <b>(Review recommendations and proceed with script).</b></li> <li>Currently, there are no specific data on COVID-19 vaccination in individuals who have MS.</li> <li>The vaccine antibody response in MS patients may not be as strong as the immune response in individuals who do not have MS. This will depend on the disease process and the client's MS treatment. Immunized individuals still need to take precautions against COVID-19 disease.</li> <li><b>Based on your therapy the recommendation is as follows: refer to treatments 1 – 4 in second column.</b></li> <li>Do you have any additional questions or concerns about getting immunized with the COVID-19 vaccine?</li> <li><b>(If the treatment plan in second column supports immunization)</b> Do you consent to being immunized with the (Brand) of COVID-19 vaccine?</li> </ul>



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	<p>any type of fumaric acid ester), and natalizumab.</p> <ul style="list-style-type: none"> <li>• Patients who previously received cladribine, alemtuzumab, mitoxantrone, cyclophosphamide or a hematopoietic stem cell transplant, and have reconstituted their lymphocytes (generally <math>\geq 0.5-0.8 \times 10^9</math> cells/L).</li> </ul> <p>2. Patients on the following treatments may have a <b>modest decrease in vaccine effectiveness</b>, but they <b>need no alteration in vaccine timing</b>.</p> <ul style="list-style-type: none"> <li>• Fingolimod, ozanimod, and siponimod.</li> </ul> <p>3. Patients on the following treatments may have a more pronounced decrease in vaccine effectiveness, and it may be prudent to <b>delay the first dose until 4 weeks after vaccine completion. If treatment has already started, the vaccine should be given at least 4 weeks before and 4 weeks after a treatment dose.</b></p> <ul style="list-style-type: none"> <li>• Ocrelizumab, rituximab, and ofatumumab.</li> </ul> <p>4. Patient on the following treatments <b>should delay vaccination until appropriate immune reconstitution has taken place</b> (which they need to discuss with their physician/specialist):</p> <ul style="list-style-type: none"> <li>• Cladribine, alemtuzumab, mitoxantrone, cyclophosphamide, and hematopoietic stem cell transplant.</li> </ul> <ul style="list-style-type: none"> <li>• Depending on the condition, the amount of protection may not be as high. Advise to ensure they still need to take precautions against COVID – 19 disease.</li> </ul>	





### References

1. Society of Obstetricians and Gynaecologists of Canada. SOGC Statement on COVID-19 Vaccination in Pregnancy. Version date: December 18, 2020
2. Cohn A, Mbaeyi S. What clinicians need to know about the pfizer-biontech covid-19 vaccine. Centers for Disease Control and Prevention (CDC). 2020.
3. National Advisory Committee on Immunization. Recommendations on the use of COVID-19 vaccine(s). 2021-01-12 <https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines.html>
4. American Autoimmune Related Disease Ltd. <https://www.aarda.org/diseaselist/>

### Common Auto Immune Conditions\*<sup>1</sup>

\*This is not an exhaustive list

Addison's	Guillain-Barre syndrome	Optic Neuritis
Alopecia areata	Hashimoto's thyroiditis	Psoriasis
Amyloidosis	Hemolytic anemia	Psoriatic arthritis
Ankylosing spondylitis	Henoch-Schonlein purpura	Raynaud's syndrome
Celiac disease	Juvenile arthritis	Restless legs syndrome
Crohn's disease	Kawasaki disease	Rheumatoid arthritis
Diabetes (type 1)	Lupus	Sarcoidosis
Endometriosis	Meniere's disease	Scleroderma
Erythema nodosum	Multiple Sclerosis	Thrombocytopenic purpura
Fibromyalgia	Myasthenia gravis	Ulcerative Colitis
Graves' disease	Neutropenia	

<sup>1</sup>list obtained American Autoimmune Related Disease Ltd. <https://www.aarda.org/diseaselist/>