

FAQs for Healthcare Providers

Remdesivir (antiviral medication) Outpatient Treatment

What is Remdesivir?

Remdesivir is an antiviral medication that prevents the replication of the coronavirus that causes COVID-19.

Has Remdesivir been approved for use?

Health Canada provided authorization in October 2020 for use of Remdesivir in Canada to treat adults and adolescents (aged 12 years and older with body weight at least 40 kg) who have tested positive for COVID-19.

Remdesivir is NOT a replacement for COVID-19 vaccination. **Albertans are strongly encouraged to get fully vaccinated against COVID-19.**

What are the eligibility criteria for Remdesivir in Alberta?

Remdesivir is approved for outpatient use in Alberta for individuals with mild to moderate COVID-19 symptoms who have a positive test for COVID-19, are at risk for severe outcomes and are able to receive treatment **within seven days** from the start of symptoms.

Treatment will be offered to patients who are most likely to develop severe COVID-19 illness and are at a greater risk of being hospitalized. The evidence around who is most at risk for severe outcomes is evolving. These criteria will continue to be reviewed.

Treatment eligibility:

Age	0 to 1 dose	2 doses	3+ doses	Regardless of Vaccine Status
18+ with one or more pre-existing health conditions or pregnancy	✓	✗	✗	✗
55+ or Indigenous 45+	✓	✗	✗	✗
60+ or Indigenous 50+ with one or more pre-existing health conditions	✓	✓	✗	✗
70+ or Indigenous 60+ with 2 or more pre-existing health conditions	✓	✓	✓	✗
Immunocompromised*	✓	✓	✓	✓

Living in long-term care or designated supportive living	✓	✓	✓	✓
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*Immunocompromised patients under 18 years of age should consult with their specialist for consideration of treatment. Transplant patients should **NOT** be offered Paxlovid™ due to the potential for life-threatening drug interactions.

1. Unvaccinated or have received one dose of a COVID-19 vaccine and are either:

- Age 55 or older
- Indigenous, and age 45 or older
- Age 18 and older with a pre-existing health condition⁺
- Pregnant

2. Two doses of a COVID-19 vaccine and are either:

- Age 60 or older AND have ONE or more pre-existing health condition(s)
- Indigenous and 50 years of age or older AND have ONE or more pre-existing health condition(s)⁺

3. Three or more doses of a COVID-19 vaccine and are either:

- Age 70 or older AND have TWO or more pre-existing health condition(s)
- Indigenous and 60 years or older AND have TWO or more pre-existing health condition(s)⁺

4. Immunocompromised (regardless of vaccination status), due to reasons including but not limited to:

- have received a transplant – solid organ or stem cell (Transplant patients should NOT receive Paxlovid™ due to the potential for life-threatening drug interactions but are eligible for other therapies, such as Remdesivir. Transplant patients should be assessed and treated through the centralized Outpatient Treatment Program by calling 1-844-343-0971 or through their transplant specialist. All prescribers in the community including Primary Care physicians, Nurse Practitioners and Pharmacists should refer transplant patients to the centralized team or the patient's specialist/team.
- is an oncology (cancer) patient who has received a dose of any IV or oral chemotherapy or other immunosuppressive treatment since December 2020
- has an inflammatory condition (e.g., rheumatoid arthritis, lupus, inflammatory bowel disease) and has received a dose of any systemic immunosuppressive treatment since December 2020.

5. Living in long-term care or some designated supportive living sites (DSL4 and 4D), regardless of vaccination status.

⁺ Pre-existing Health Conditions include:

- diabetes (taking medication for treatment)
- obesity (BMI >30)
- chronic kidney disease (estimated glomerular filtration rate, <60 ml per minute per 1.73 m² of body-surface area)
- congestive heart failure (New York Heart Association class II, III, or IV)
- chronic obstructive pulmonary disease, and moderate-to-severe asthma

*Please note that Remdesivir is also approved for patients admitted to hospital for COVID-19. Please consult the AHS Provincial Drug Formulary for further information on inpatient use.

Why is this medication limited to people who can receive treatment within seven days of onset of symptoms?

Remdesivir has been shown to be most effective when administered in the early phases of infection and viral replication, while symptoms remain mild to moderate (i.e., no shortness of breath at rest and no requirement for supplemental oxygen). If people have COVID-like symptoms, they are advised to get tested as early as possible to allow sufficient time to determine potential eligibility for Remdesivir treatment.

Can Remdesivir be used in patients under 18 years of age?

For those aged 12 to 17, Remdesivir may be considered if the individual meets the eligibility criteria. For those with COVID-19 in this age group who are immunocompromised and potentially eligible for Remdesivir, a consultation with a Pediatric Infectious Disease specialist needs to occur to determine whether Remdesivir is an appropriate treatment for the patient. Health Canada has not approved Remdesivir use for patients under the age of 12.

If treatment for a pediatric patient is approved, where will it be administered?

For pediatric patients, treatment should be directed initially through the EMS Mobile Integrated Health (MIH) program. If the patient is outside of the MIH treatment area or MIH does not have capacity, a referral will be made to the closest available AHS site. At this time, our third-party provider, will not administer Remdesivir to pediatric patients.

How were the eligibility criteria selected?

Eligibility criteria were partly based on evidence from the PINETREE study, and partly on expert consensus, including a thorough analysis of provincial data showing risk factors for severe disease among Albertans testing positive for COVID-19.

Why is pregnancy included if pregnant patients were not included in the study?

While pregnancy was not included in the clinical trial leading to licensing of Remdesivir, Health Canada notes use can be considered when the benefits outweigh the risks to the mother and fetus. This is based on the increased risk of progression to severe COVID-19 in pregnant individuals and the overall safety profile. A [systematic review](#) of 113 individuals notes that safety and efficacy of Remdesivir in combination with other COVID-19 treatments in pregnancy remains inconclusive. Careful monitoring for adverse reactions including transaminase enzyme levels is required. A specialist consult is recommended.

My patient is a resident of a Long Term Care or DSL4/4D facility. How do they access treatment?

A primary care physician or nurse practitioner may prescribe Paxlovid™ directly for eligible residents. If the resident cannot take Paxlovid™, the primary care physician or nurse practitioner can call the dedicated number at 1-844-343-0971 to discuss potential treatment with Remdesivir.

In the case of a facility outbreak, can Remdesivir be ordered for patients prior to confirmation of COVID-19 infection or onset of symptoms?

No. Patients are only eligible for Remdesivir, regardless of their location, if they meet all eligibility criteria, which include a positive COVID-19 test and presence of symptoms.

Are there any laboratory tests required prior to treatment?

According to the Health Canada monograph, a baseline ALT, eGFR and PT INR are required. These are recommended prior to starting therapy, if not available in the last six months. However, therapy should not be held pending results, and should go ahead even if laboratory testing is not possible.

Are there any renal dose adjustments required?

Current guidance is that patients with a reduced renal function (i.e., eGFR <30mL/min) do not require dose adjustment due to the short course of therapy. This is supported by published articles including:

- [Real-world risk evaluation of Remdesivir in patients with an estimated glomerular filtration rate of less than 30 mL/min - PMC \(nih.gov\)](#)
- [Safety of Remdesivir in Patients With Acute Kidney Injury or CKD - PMC \(nih.gov\)](#)

Drug	eGFR > 60mL/min	eGFR ≤ 60mL/min and ≥ 30mL/min	eGFR < 30mL/min	Dialysis
Remdesivir				
Hospitalized patients with confirmed COVID-19 pneumonia ¹ OR Patients within 7 days of symptom onset who are at increased risk of progressing to severe COVID-19 ¹	200mg IV loading dose on day 1, then 100mg IV once daily for 4 days (or 2 days for early onset indication)		Significant toxicity from remdesivir and its vehicle SBECD with short duration of therapy unlikely. Remdesivir may be beneficial in COVID-19 –induced AKI. ² No dosage reduction recommended.	Remdesivir’s predominant metabolite GS-441524 and its vehicle SBECD are ~50% dialyzable thus, there is a lower concern of renal injury in hemodialysis patients. No dosage reduction recommended. Dose after dialysis.
¹ For full eligibility criteria, see ahs.ca/covidopt ² Consider that patients with AKI and ESRD are at high risk of suffering excess morbidity and mortality from a COVID-19 infection. NOTE: The above is meant as guidance only and does not replace clinical judgment. AKI=acute kidney injury; ESRD=end stage renal disease; SBECD=sulfobutylether-beta-cyclodextrin				

How will eligible patients be identified and informed?

People in the eligible age brackets will receive information in the text from AHS that notifies them of a positive COVID-19 test result if they’ve had a lab-confirmed test. Alternatively, if they have tested positive through a Rapid Antigen Test taken at home, they can contact their Primary Care physician or visit ahs.ca/covidopt for more information. If the patient is eligible and interested in receiving treatment, but isn’t eligible to receive Paxlovid (as outlined at ahs.ca/covidopt), a message may be left on **the dedicated line at 1-844-343-0971**. Staff will call back and ask some initial screening questions and refer them to a physician with the Outpatient Treatment Program where a healthcare professional will determine eligibility and obtain consent over the phone. The appointment for Remdesivir will then be booked to take place in a third-party infusion site, the patient’s home, continuing care facility, or in an AHS site.

Transplant patients should notify their specialized healthcare team if they test positive for COVID-19. A member of their specialized team would then answer their questions and assess for eligibility.

I'm a Primary Care physician and I think my patient may be eligible for Remdesivir?

If your patient is not eligible to receive Paxlovid, but may be eligible for Remdesivir, you will need to connect in with the Outpatient Treatment Program via RAAPID. An appointment will be booked to take place in a third-party infusion site, the patient's home, continuing care facility, or at an AHS site.

What if my patient is eligible for Remdesivir and had a positive Rapid Antigen Test at home?

If the patient is not eligible for Paxlovid but may be eligible and is interested in receiving Remdesivir, they will be asked to visit ahs.ca/covidopt before calling 1-844-343-0971.

How is Remdesivir administered?

Remdesivir is administered intravenously by a qualified health professional over three days: 200mg on the first day and 100mg on days two and three. The infusion is administered over 30 minutes and the patient is monitored for an additional 15 to 30 minutes after the infusion. The expected total administration time is about 1.5 hours, including set-up. Details may be found in the [AHS parenteral monograph](#).

Where will the treatment be provided?

Infusion locations for eligible patients will be based on their location in the province and availability of staffing:

- Most patients will receive infusions in a dedicated infusion site by a third-party provider in Calgary and Edmonton.
- Some patients will receive treatment by EMS MIH in their homes or in their continuing care facility, depending on availability.
- Patients may be directed to a nearby AHS site in urban or rural areas depending on current capacity.

How will patients be monitored after treatment?

Within the first two days after the completion of treatment, a healthcare provider will follow up with the patient to check on their wellbeing. After this, patients should continue to monitor their health and report any perceived adverse effects or worsening COVID-19 symptoms to their healthcare professional or Health Link by calling 811. For urgent assistance, call 911. All patients should follow up with their family physician or healthcare provider 10 days after onset of their COVID-19 symptoms.

What are the potential adverse effects?

Side effects reported in the clinical trial include nausea, headache, cough, diarrhea, and shortness of breath. However, since there is limited clinical data, unexpected side effects may occur that have not previously been reported. The healthcare provider administering treatment will monitor for side effects during administration and for 15 to 30 minutes following the treatment and will provide care as required. For more details on avoiding potential side effects and what to watch for, refer to [Health Canada's website](#)

What should be done if COVID-19 symptoms continue to worsen?

Even with Remdesivir treatment, COVID-19 symptoms may continue or get worse. Patients will be advised to:

- Monitor their health and report any symptoms or concerns to the healthcare provider who follows up with them in the few days following their treatment. They can also call [Health Link at 811](#) or their healthcare provider if they have questions or concerns.
- **Call 911 immediately** if they experience severe symptoms of COVID-19 such as:

- difficulty breathing
- severe chest pain
- feelings of confusion/ loss of consciousness

More information on how to manage COVID-19 symptoms can be found at [Symptoms and testing | Alberta.ca](#).

Can patients receive COVID-19 vaccinations after Remdesivir treatment?

While no interaction between Remdesivir and COVID-19 vaccine is anticipated, patients should wait until they are fully recovered from the infection before getting vaccinated to ensure they receive the maximum benefit from the vaccine.

What if the patient tests positive for COVID-19 again? Can Remdesivir be offered more than once?

Remdesivir can be prescribed again for a confirmed new COVID-19 infection, but patients are strongly encouraged to get vaccinated against COVID-19 after fully recovering from the infection.

Why is Alberta providing access to this drug? How many patients could benefit?

Remdesivir may help prevent mild to moderate COVID-19 from progressing. By providing access to Remdesivir, it is anticipated that the outcomes of patients most at risk will be improved.

Is Remdesivir being used elsewhere?

Yes. Outpatient antiviral treatments like Remdesivir are currently being used in many areas of the United States, as well as in Saskatchewan, Ontario, British Columbia. AHS is working with other health authorities in Canada so that we can all learn how to use using this treatment most effectively.

I care for a patient in Saskatchewan or British Columbia; do these patients have access to Remdesivir?

For information on Saskatchewan's program, visit www.saskatchewan.ca/monoclonal.

For Information on the British Columbia program, visit [Health Care Provider Info-sotrovimab-Paxlovid.pdf \(bccdc.ca\)](#)

Residents from other provinces who are visiting or working in Alberta will be eligible to receive Remdesivir, utilizing the same criteria and processes as Albertans.

I have a patient I believe is eligible for Remdesivir treatment. How do I refer that patient for further assessment?

For patients who may meet the eligibility criteria to receive treatment, the patient or family member should call the dedicated line at **1-844-343-0971**. Primary care physicians, or nurse practitioners can call on behalf of patients living in continuing care settings.

I have a patient admitted to an AHS facility for care. Are they eligible for Remdesivir?

Remdesivir is also approved for patients with severe COVID-19, however the eligibility criteria are different than the outpatient criteria. Please consult the AHS Provincial Drug Formulary for further information.

I have a patient that cannot use/access Paxlovid™ or remdesivir. Is Sotrovimab still available?

Sotrovimab may be considered only when the variant is confirmed as not being BA.2. In these situations, the MAPP team is able assist in the assessments and medication ordering. It is important that treatment decisions should not be held up while waiting for the variant type because variant typing can take up to three days. This may prevent the patient from receiving treatment within the five to seven-day window.

I have additional questions about the monoclonal antibody program. Who can I speak with?

The team of physicians who are working in the program are available to answer questions about the program. They are available between **8 a.m. and 8 p.m.** daily and can be reached through RAAPID.

- North: 1-800-282-9911 or 780-735-0811
- South: 1-800-661-1700 or 403-944-4486

For more information on Remdesivir or other outpatient treatments for COVID-19, visit ahs.ca/covidopt.