Is there a Monkeypox Vaccine? June 10, 2022

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At the time of writing, Canada has 110 confirmed cases of Monkeypox, and 98 of those cases are in Quebec.* Last week, Canada had 58 confirmed cases, and Quebec had 52 confirmed cases.* The number of confirmed cases in Ontario has increased from 5 to 9.* Alberta has 2 confirmed cases and Vancouver has 1 confirmed case.*

Is there a Monkeypox vaccine? Technically, no. There aren't any vaccines or treatments made specifically for Monkeypox.*

However, in 2020, Health Canada authorized that a newly-developed smallpox vaccine called Imvamune can be used to prevent Monkeypox and similar diseases in adults who are at high risk of exposure.* This article will explain the Imvamune® vaccine in more detail. To learn more about Monkeypox in general, check out last week's article!

Why was a smallpox vaccine recently created if smallpox was eradicated in the 1980s?

It's true that smallpox was declared to have been eradicated worldwide in 1980.* Smallpox no longer occurs naturally, but the global health sector has not stopped being vigilant in case it ever reappears again.* For instance, if it got released by a laboratory accident.*

This is why newer vaccines, diagnostics, and antiviral agents are still being developed for smallpox. Imvamune is one of these newer vaccines.*

Can this vaccine be used to treat the virus?

No. The Imvamune vaccine can help with prevention, but it does not treat the virus.* According to the Ontario Ministry of Health, getting the Imvamune vaccine "after an exposure to Monkeypox infection may prevent infection or may lessen disease severity in those who still go on to develop infection after receiving vaccine as post-exposure prophylaxis (PEP)."*

Does Canada have any doses of this vaccine?

Yes, Canada has a limited supply of the Imvamune® vaccine in its National Emergency Strategic Stockpile (NESS).* The Public Health Agency of Canada (PHAC) says that they are working on planning the way forward with provinces, territories and partners, such as providing access to approved vaccines in Canada that can be used in managing Monkeypox in their jurisdiction.*

Is there going to be another vaccine rollout?

At the moment, it doesn't look like there will be. According to PHAC, there is no need for the vaccine to be used for mass immunization at this time.* This is in alignment with international expert assessments, such as the World Health Organization.* That said, the situation is under close monitoring, so this may change in the future.*

Are there any side effects to Imvamune?

The most common side effects include reactions at the injection site, such as pain, rashes (erythema), raised bumps of hardened tissue (induration), and swelling.* The most common reactions after vaccination are fatigue, headache, body aches (myalgia), and nausea.*

Most of the reported adverse drug reactions that were observed in clinical trials were mild to moderately intense and resolved within the first seven days after vaccination.*

Older generation smallpox vaccines have been associated with heart inflammation (myocarditis).* Imvamune is a newer generation smallpox vaccine.* No cases of myocarditis or pericarditis have been identified in clinical trials of Imvamune.*

However, the Ontario Ministry of Health recommends that these adverse events be monitored: asymptomatic troponin elevation, abnormal ECG findings, tachycardia, and palpitations.* Cardiac-related adverse effects were reported to occur in 1.4% (91/6,640) of Imvamune recipients and 0.2% (3/1,206) of placebo recipients who had never received the smallpox vaccine.*

You should seek medical attention if any cardiac symptoms (such as chest pain, shortness of breath, and heart palpitations) develop after you are vaccinated with Imvamune.*

I want this vaccine. How can I get it?

Right now, you can only access it to treat Monkeypox post-exposure prophylaxis (PEP).*

You will need to have your risk of exposure assessed by your public health unit. *They will assess if you meet the definition of a high risk contact of a confirmed or probable case of Monkeypox. *Intermediate risk contacts may also be offered PEP, following the public health unit's assessment of individual risks and benefits. *

You are not recommended to receive it if you were just in the same environment (such as a bar or nightclub) as a confirmed/probable case but you don't know if you have high or intermediate risk of exposure. ** Low risk contacts are also not recommended to get it. **

What do we know about the Imvamune vaccine in people who are immunocompromised?

Clinical trials of Imvamune have included people living with HIV with a CD4 count of greater than 100.* There is less experience in individuals with severe immunosuppression.* If

you want to receive this vaccine as PEP, and you have severe immunosuppression, you should have additional risk/benefit discussions with your doctor or public health unit.*

Who should not receive Imvamune?

Individuals who are hypersensitive to this vaccine or to any ingredient in the formula or component of the container should not receive the vaccine.* A list of ingredients can be found here. You can click "Ctrl+F" on your keyboard and search for any ingredients that you are hypersensitive to.

Individuals with signs or symptoms of Monkeypox infection should not receive the vaccine as the vaccine is not meant to treat Monkeypox infection.

Final Thoughts

Around the world and within Canada, Monkeypox is being investigated on an ongoing basis, and what we know about it is constantly evolving. * PHAC will continue to provide updates to the public as new information becomes available. *

If you think you may be experiencing symptoms of COVID-19, take the self-assessment at www.ontario.ca/coronavirus. Follow all directions from your medical provider or your local health unit at the following phone numbers:

Telehealth Ontario: 1-866-797-0000

Toronto Public Health: 416-338-7600

Peel Public Health: 905-799-7700

Durham Region Health Department: 905-668-7711

York Region Public Health: 1-877-464-9675