Nurses and Nurse Practitioners of British Columbia

ISSUES BRIEF

COVID-19: Additional Variants (B.1.351 and P.1)

January 2021

Background

New COVID-19 variants have been identified over the last several weeks. Notably, the B.1.351 and P.1 variants have been identified since the B.1.1.7 variant emerged in late 2020. There has also been some discussion that there may be initial samples of a variant found in the US as well, although at the time of writing this has yet to be confirmed.

The B.1.351 variant is now the most prevalent version of COVID-19 found in South Africa and latest numbers show that it has been transmitted to approximately 20 countries, including Canada.[i] On January 14, 2021, Provincial Health Officer, Dr. Bonnie Henry noted that to date, four cases of the B.1.1.7 variant and one case of B.1.351 have been confirmed in BC.[ii] Dr Henry noted that public health is investigating the B.1.351 case in particular as the person who contracted it has not recently travelled, nor have they been in contact with someone who has travelled.[iii] No cases of the P.1 variant have been identified in BC, and the emergence of a potential variant found in the US is still being studied.

Thus far, researchers have noted that while these mutated variants seemingly spread more rapidly than the 'original' version of the COVID-19 virus, they do not appear to be more deadly The World Health Organization (WHO) regularly assesses new variants and to date do not have any evidence suggesting that these variants cause more severe illness.[iv] However, as these variants are still new, more studies are required to fully understand the potential implications that these mutations may have on vaccines for example.

Scientists announced the B.1.351 variant at the end of December 2020, and believe it originally emerged in South Africa's Eastern Cape, Western Cape and KwaZulu-Natal provinces.[v] This variant includes one of the same mutations as that of the B.1.1.7, plus two other mutations to the virus's spike proteins.[vi] Some researchers have studied the Pfizer-BioNTech vaccine's ability to work against one mutation in the B.1.351 variant. While this study group is small, the initial results are promising.[vii]

The P.1 variant was detected in four people who had travelled to Japan in January.[viii] Each of the four travellers had recently been to the Amazon region of Brazil, an area that has been hit extremely hard by the COVID-19 pandemic. Initial studies done by Japan's National Institute of Infectious Diseases (NIID) have discovered 12 possible mutations within this variant, but more research needs to be done to determine how exactly this variant responds to the approved vaccines.[ix] Again, this variant has yet to be detected in BC, but given the global nature of our world and given people are still able to travel for legitimate reason from country to country, these new variants are all important to watch carefully.

These changes and variants are common and not an unexpected development for scientists who have been studying COVID-19. Virus mutations occur very regularly, and most mutations prove to be inconsequential.[x] NNPBC continues to support evidence-based approaches to managing the spread of the COVID-19 pandemic. These include using layers of protection such as wearing a mask, washing hands regularly, practising physical distancing, limiting travel, staying home when ill, and complying with public health guidelines. Because nurses are at the forefront of care during this pandemic, nursing expertise is critical in helping people understand the importance of following public health guidelines in a time of COVID-19 mutations and evolving science.

Key Messages

- A new COVID-19 variant known as the B.1.351 variant has been detected in BC.
- A new COVID-19 variant known as the P.1 variant originally found in Brazil has been detected outside of the country, but to date there are no confirmed cases of this variant in Canada.
- COVID-19 variants appear to spread more quickly than the 'original' form of the virus, but there is no evidence that they cause more severe infection.

- Scientists continue to study vaccine efficacy against new and emerging variants of COVID-19.
- Virus mutations are not new or uncommon.
- Using layers of protection such as wearing a mask, washing hands regularly, practising physical distancing, limiting travel, staying home when ill, and complying with public health guidelines are imperative in stopping and/or limiting the spread of COVID-19.
- Nurses can help to educate the public on how to best protect themselves against COVID-19, including new variants.
- NNPBC supports evidence-based approaches to slowing the spread of COVID-19.
- NNPBC will continue to monitor new variants of COVID-19 for the purposes of ensuring that nurses stay informed.

Further Reading/Resources

- BC Government: Joint statement on B.C.'s COVID-19 response, latest updates
- World Health Organization: SARS-CoV-2 Variants
- BC CDC: Vaccination at a glance
- BC CDC: COVID-19 Current Situation
- CDC: COVID-19 General Information

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[i] Roberts, M. Jan 15, 2021. *BBC.* "Covid: How worrying are the UK, South Africa and Brazil coronavirus variants?"

[ii] BC Gov News. Jan 14, 2021. "Joint statement on B.C.'s COVID-19 response, latest updates."

[iii] Little, S. Jan 14, 2021. *Global News.* "BC becomes 2nd province to identify South African COVID-19 variant."

[iv] WHO. Dec 31, 2020. "SARS-CoV-2 Variants."

[v] Ibid.

[vi] Roberts, M. Jan 15, 2021. "Covid: How worrying are the UK, South Africa and Brazil coronavirus variants?"

[vii] Roberts, M. Jan 8, 2021. *BBC.* "South African coronavirus variant: What is the risk?"

[viii] Meredith, S. Jan 15, 2021. *CNBC.* "A new Covid variant has been discovered in Brazil – here's what we know so far."

[ix] Ibid.

[x] Roberts, M. Jan 8, 2021. *BBC.* "South African coronavirus variant: What is the risk?"