

COVID-19 Vaccine Recommendations in the Context of the Omicron Variant

23 December 2021

Overview

The Ontario Immunization Advisory Committee (OIAC) met on December 15 and 17, 2021 to review and discuss the available evidence on the Omicron variant including current and projected Ontario epidemiology, vaccine performance, and other immunization considerations to provide COVID-19 vaccine recommendations in the context of the Omicron variant.

Recommendations

1. Prioritization for third doses of COVID-19 vaccines should be given to those 50 years of age or older given their higher risk of severe outcomes due to COVID-19. Healthcare workers should also be prioritized to preserve health system capacity and protect vulnerable patients.
 - Individuals in these two high risk groups should be made eligible for a third dose at least three months after the completion of the primary series.
2. Third doses should then be given to those 18-49 years of age. Scheduling of third doses in this age group should prioritize those who are furthest in time from their second dose.
3. OIAC continues to support the NACI recommended interval of at least eight weeks between the first and second dose of the pediatric COVID-19 vaccine among children 5-11 years of age.
4. At the present time, there is insufficient evidence to recommend a routine third dose for all children and adolescents 5 to 17 years of age.

Rationale

- The Omicron variant is highly transmissible and will lead to a rapid increase in case counts, including in highly vaccinated populations such as Ontario.^{1,2,3}
- Early evidence has indicated that vaccine effectiveness (VE) is lower against infection with the Omicron variant and wanes more rapidly as compared to infection with the Delta variant.⁴
- A third dose of mRNA vaccine has been shown to restore VE. However, VE against infection with the Omicron variant remains lower than against the Delta variant,⁴ and the duration of this increased protection following a third dose is not currently known.

- The severity of COVID-19 increases with age, with adults 50 years of age and older being at highest risk of hospitalization or death following infection.⁵ Protecting healthcare workers from infection is essential to maintaining health system capacity and will reduce the risk of transmission to vulnerable patient groups. While there are benefits to extended intervals (i.e., at least six months) between second and third doses in terms of immune response, given the current rapid spread of Omicron in Ontario, adults 50 years of age and over and healthcare workers would benefit from receiving their third dose at a shorter interval (i.e., at least three months) to reduce these risks in the shorter term.
- For the remaining eligible ages (i.e. 18-49 years), if prioritization by time since last dose is incorporated in the implementation, then most would likely receive their third dose closer to the optimal interval (i.e. at least six months). This optimal interval may also have the benefit of further reducing the rare risk of myocarditis following the third dose of mRNA vaccines in young adults (i.e. 18-29 years of age).
- Like other vaccines, longer intervals between the first and second dose of COVID-19 vaccines result in a stronger and more robust immune response, which is very likely to be important for protection against the Omicron variant. Optimizing the immune response of children is important for their long-term protection against COVID-19 as Omicron or future variants are likely to continue to circulate beyond the next several months.
- The committee will continue to monitor the evidence on the durability of the immune response to COVID-19 vaccines in children and adolescents, information relating to the Omicron variant, and outcomes of third dose administration (i.e. VE, vaccine safety) to inform any future recommendations for children and adolescents.

References

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About the Ontario Immunization Advisory Committee

The OIAC is a multidisciplinary scientific advisory body that provides evidence-based advice to Public Health Ontario on vaccines and immunization matters including vaccine program implementation in Ontario, priority populations and clinical guidance. The focus of the OIAC's work is on publicly-funded vaccines and immunization programs in Ontario, including COVID-19 and those under consideration for new programming. For more information about the OIAC and its members contact secretariat@oahpp.ca

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OIAC Members

Jessica Hopkins, co-chair
Chief Health Protection and
Emergency Preparedness Officer
Public Health Ontario

Dr. Jeffrey Pernica, co-chair
Head, Division of Infectious Disease
Department of Pediatrics
McMaster University

Dr. Juthaporn Cowan
Associate Scientist
The Ottawa Hospital Research Institute

Dr. Vinita Dubey
Associate Medical Officer of Health
Toronto Public Health

Dr. Julie Emili
Associate Medical Officer of Health
Region of Waterloo

Dr. Mariam Hanna
Pediatric Allergist and Clinical Immunologist

Susie Jin
Pharmacist

Dr. Allison McGeer
Professor, Laboratory Medicine and
Pathobiology
University of Toronto
Dalla Lana School of Public Health

Dr. Justin Presseau
Scientist
The Ottawa Hospital Research Institute

Dr. Maurianne Reade
Family Physician; Associate Professor
Northern Ontario School of Medicine

Richard San Cartier
Clinical Team Lead
N'Mninoeyaa Aboriginal Health Access
Centre

Dr. Beate Sander
Director (Acting)
Toronto Health Economics and Technology
Assessment Collaborative

Fairleigh Seaton
Director, Infectious Disease Prevention
and Environmental Health
Kingston, Frontenac and Lennox &
Addington Public Health

Dr. Wendy Whittle
Maternal Fetal Medicine Specialist
Mount Sinai Hospital

OIAC Ex-Officio Members

Tara Harris
Manager
Immunization and Emergency Preparedness
Public Health Ontario

Robert Lerch
Director (Acting)
Health Protection and Surveillance Policy
and Programs Branch
Ministry of Health

Dr. Daniel Warshafsky
Associate Chief Medical Officer of
Health (Acting)
Office of Chief Medical Officer of Health,
Public Health
Ministry of Health

Dr. Sarah Wilson
Public Health Physician
Public Health Ontario

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