



## PHAC Vaccine Confidence Webcast Series

# New COVID-19 vaccines in Canada: An overview of Novavax Nuvaxovid™ and Medicago Covifenz®



# Objectives

- Discuss the clinical evidence for the Novavax Nuvaxovid and Medicago Covifenz COVID-19 vaccines.
- Summarize the National Advisory Committee on Immunization recommendations for the use of Novavax Nuvaxovid and Medicago Covifenz COVID-19 vaccines.

# **Nuvaxovid and Covifenz vaccines: An overview**

# Novavax Nuvaxovid



**Type:**  
Protein subunit (recombinant, adjuvanted)

**Date of authorization:**  
February 17th, 2022



Contains a spike protein that is on the surface of SARS-CoV-2, and Matrix-M, an **adjuvant** which creates a stronger immune response.



**Indication:** 18 years and over primary series

NACI advice: Novavax Nuvaxovid not authorized as a booster but may be offered if unable or unwilling to receive an mRNA vaccine.

## Safety

Side effects typically mild and resolved within 1 - 2 days.

They occurred more frequently after the 2<sup>nd</sup> dose and more common in adults 18 to 64 years of age compared to older adults.

\* Vaccine clinical trials are generally too small to detect very rare safety events.

## Efficacy

~90% efficacious in preventing confirmed symptomatic COVID-19 disease in clinical trials.

(Trials conducted before the emergence of Delta and Omicron variants)

# Medicago Covifenz

**Type:**

Virus-like particle (VLP) (recombinant, adjuvanted)

**Date of authorization:**

February 24th, 2022



The VLP mimics the natural structure of the virus and allows the immune system to recognize and generate an immune response.



**Indication:** 18 to 64 years of age primary series

Not currently authorized or recommended as a booster dose.

## Safety

Side effects typically mild and resolved within 1 - 3 days. No serious safety concerns identified in clinical trial.\*

\* Vaccine clinical trials are generally too small to detect very rare safety events.

## Efficacy

71% efficacious in preventing confirmed symptomatic COVID-19 disease in clinical trials.

(Trials conducted before the emergence of Omicron variant)

## Summary of vaccine characteristics

Product characteristics	Novavax Nuvaxovid	Medicago Covifenz
Dose	0.5 mL (5 mcg SARS-CoV-2 recombinant spike protein)	0.5 mL (3.75 mcg SARS-CoV-2 recombinant spike protein)
Doses per vial	10	10
Presentation	Single vial: 5 mL	2 vials: 2.5 mL of antigen suspension 2.5 mL adjuvant emulsion
Potential allergens	Polysorbate 80	<ul style="list-style-type: none"> <li>Polysorbate 80</li> <li>May contain trace amounts of polyethylene glycol [PEG], Kanamycin, Carbenicillin</li> </ul>
Adjuvant	Matrix-M adjuvant (50 mcg)	AS03 oil-in-water emulsion with polysorbate 80, $\alpha$ -tocopherol and squalene
Storage requirements	Unopened vials to be stored at 2°C to 8°C for a maximum of 9 months. Do not freeze. Keep the vials in the original carton to protect from light.	Unopened vials to be stored in a refrigerator (2°C to 8°C) until expiry, protected from light and stored upright. Do not freeze.
Opened vial storage	2°C to 25°C for up to 6 hours after first needle puncture.	20°C to 30°C for up to 6 hours after mixing and protected from light.

[Recommendations on the use of Novavax Nuvaxovid COVID-19 vaccine](#)  
[Recommendations on the use of Medicago COVID-19 vaccine \(Covifenz\)](#)

# Immunization schedule

Vaccine product	Novavax	Medicago
Immunization schedule: Primary series	2-dose schedule	2-dose schedule
<b>Age indication</b>	<b>18 years of age and over</b>	<b>18-64 years of age</b>
Minimum interval	21 days	21 days
Authorized interval	21 days	21 days
NACI recommended Interval	8 weeks	8 weeks

[Recommendations on the use of Novavax Nuvaxovid COVID-19 vaccine](#)  
[Recommendations on the use of Medicago COVID-19 vaccine \(Covifenz\)](#)

## True or False?

The Medicago Covifenz vaccine may be administered to any adult 18 years and older.

**False:** Medicago Covifenz is currently only authorized in Canada for individuals who are between 18 and 64 years of age.





## True or False?

Although the minimum authorized interval is of 21 days for the Novavax and Medicago COVID-19 vaccines, NACI recommends an interval of at least 8 weeks between doses.

**True:** NACI recommends an interval of at least 8 weeks as emerging evidence suggests that a longer interval results in more robust and durable immune response and higher vaccine effectiveness.



# **National Advisory Committee on Immunization recommendations on the Nuvaxovid and Covifenz COVID-19 vaccines**

## Recommendations for COVID-19 vaccine primary series and booster

### Primary series

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1. NACI preferentially recommends a complete series with an mRNA COVID-19 vaccine if there are no contraindications.
2. NACI recommends that an authorized recombinant protein subunit COVID-19 vaccine (Novavax Nuvaxovid) or recombinant VLP COVID-19 vaccine (Medicago Covifenz) may be offered to individuals who are not able or willing to receive an mRNA COVID-19 vaccine.
3. NACI recommends that a viral vector COVID-19 vaccine may be offered only when all other authorized COVID-19 vaccines are contraindicated.

### Booster

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4. NACI preferentially recommends that a booster dose of an mRNA COVID-19 vaccine be offered  $\geq 6$  months after completion of a primary COVID-19 vaccine series to those without contraindications.
5. NACI recommends that a booster dose of a recombinant protein subunit COVID-19 vaccine (Novavax Nuvaxovid) may be offered  $\geq 6$  months after completion of a primary COVID-19 vaccine series to adults without contraindications to the vaccine who are not able or willing to receive an mRNA COVID-19 vaccine.

[Recommendations on the use of Novavax Nuvaxovid COVID-19 vaccine](#)

See also: [Updated guidance on a first booster dose of COVID-19 vaccines in Canada](#)

## Simultaneous administration with other vaccines



NACI recommends that mRNA, viral vector, recombinant protein subunit (Novavax Nuvaxovid) or recombinant VLP (Medicago Covifenz) COVID-19 vaccines **may be given simultaneously** with (i.e., same day), or at any time before or after, non-COVID-19 vaccines (including live and non-live vaccines).

(Discretionary NACI recommendation)



## Key takeaways

- mRNA COVID-19 vaccines are preferred for primary series and boosters when there are no contraindications.
- Some individuals cited COVID-19 vaccines safety concern and therefore are hesitant to receive mRNA or viral vector vaccines.
- In adult populations, should mRNA not be an option:
  - **for primary series, you may consider**
    - ✓ Novavax Nuvaxovid (18 years and over)
    - ✓ Medicago Covifenz (18-64 years)
  - **for booster, you may consider**
    - ✓ Novavax Nuvaxovid (18 years and over)

# Case scenario

## Scenario: Melanie



- 28 years old
- Front line service provider
- Received one dose of Pfizer Bio-N-Tech Comirnaty 4 months ago
- Concerned with the safety of mRNA vaccines
- She felt that she had to take whatever vaccine was available at that time but is now hesitant to receive another dose of it
- She held off on receiving her second dose but is interested in receiving one of the newly approved vaccines now that there are alternate options available

1. Could Melanie receive the Medicigo Covifenz or Novavax Nuvaxovid vaccine for the second dose of her primary series?
2. How could you respond to her request?

# Scenario Answer



## Clinical considerations

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What we know:

- The Medicago Covifenz vaccine is indicated for use in primary series of COVID-19 vaccines for adults who are 18-64 years.
- The Novavax Nuvaxovid vaccine is indicated for use in primary series of COVID-19 vaccines for adults 18 years and over.
- NACI **preferentially** recommends that a complete series with an **mRNA COVID-19 vaccine** should be offered to individuals in the authorized age group without contraindications to the vaccine. (Strong NACI Recommendation)
- NACI recommends that an authorized recombinant protein subunit COVID-19 vaccine (Novavax Nuvaxovid) or recombinant VLP COVID-19 vaccine (Medicago Covifenz) **may be offered to individuals who are not able or willing to receive an mRNA COVID-19 vaccine.** (Discretionary NACI Recommendation)



Preferred option



Also an option

[Recommendations on the use of Novavax Nuvaxovid COVID-19 vaccine](#)  
[Recommendations on the use of Medicago COVID-19 vaccine \(Covifenz\)](#)



## Scenario Answer (continued)



### Vaccine confidence considerations

- Solicit information respectfully and listen actively
  - Tell me about why you are considering the Medicago and Novavax vaccine options.
  - What makes you feel more confident in the safety of these vaccines?
- Identify and acknowledge her concerns
  - I'm hearing that you have concerns about the mRNA vaccines? Does that sound right?
  - Tell me about your concerns about mRNA vaccines.
- Integrate personal context with any facts and statistics, and address misinformation/misconceptions
  - What do you think about your personal risks for COVID-19?
  - Can I share what I know about the risks and benefits of mRNA vaccines and why they are preferred?
- Use culturally appropriate approach, acknowledging the patient's unique context, values and beliefs
- Use plain language, avoid scientific jargon
- Support them in making the choice to be vaccinated against COVID-19

([NIH, 2020](#); [Lewandowsky et al., 2021](#),  
[PHAC, 2021](#), [Gagneur, A., 2020](#))

## Scenario Answer (continued)



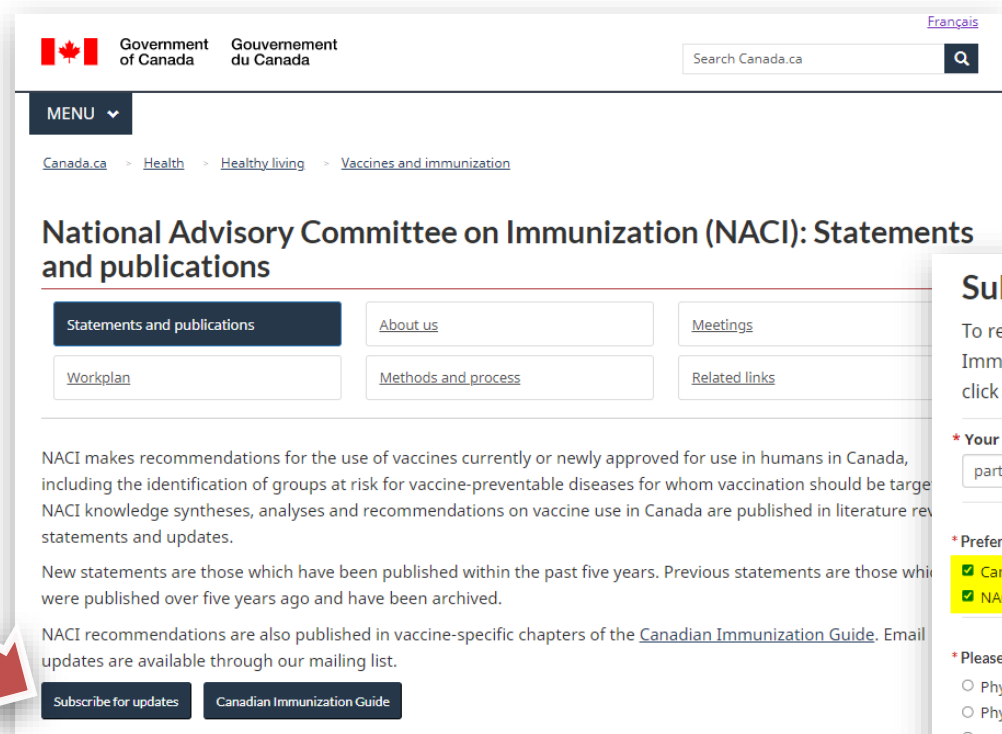
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## National Advisory Committee on Immunization (NACI): Statements and publications

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NACI makes recommendations for the use of vaccines currently or newly approved for use in humans in Canada, including the identification of groups at risk for vaccine-preventable diseases for whom vaccination should be targeted. NACI knowledge syntheses, analyses and recommendations on vaccine use in Canada are published in literature reviews, statements and updates.

New statements are those which have been published within the past five years. Previous statements are those which were published over five years ago and have been archived.

NACI recommendations are also published in vaccine-specific chapters of the [Canadian Immunization Guide](#). Email updates are available through our mailing list.

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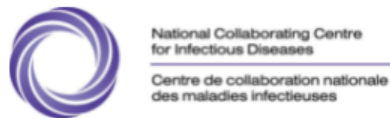
<https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci.html>

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COVID-19 for health professionals: Training

[www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/training.html](http://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/training.html)



National Collaborating Centre for Infectious diseases

[nccid.ca/phac-webinars-on-covid-19-vaccines](http://nccid.ca/phac-webinars-on-covid-19-vaccines)



Canadian Vaccination Evidence Resource and Exchange Centre

[www.canvax.ca/canvax-webinar-series](http://www.canvax.ca/canvax-webinar-series)



**THANK YOU FOR  
JOINING US!**

*Copies of the presentation and video will be made available on [canvax.ca](https://canvax.ca)*

# References

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