

**Older Adult Respiratory Syncytial Virus (RSV) Immunization Program  
Questions and Answers for Immunization Providers – September 2026**

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## Part A. Older adult RSV immunization program

### 1. What is the older adult RSV immunization program?

Starting fall 2026, BC's older adult RSV immunization program offers Moderna's mRNA RSV vaccine, mRESVIA®, to certain eligible older adults. The program is currently intended to run from 2026-27 through 2028-29. [\[TOC\]](#)

### 2. Who is eligible for this program?

- Individuals 75 years of age and older
- First Nations, Métis, and Inuit (Indigenous) individuals 60 years of age and older

See [Part 4 — Biological Products, RSV Vaccines, mRESVIA®](#) in the BC Immunization Manual for details.

While [NACI recommends RSV vaccination for broader groups](#) (see [Question 4](#)), eligibility in BC is narrower due to vaccine availability. Individuals not currently eligible for publicly funded vaccine may benefit from a discussion with their health care provider about purchasing RSV vaccine. [\[TOC\]](#)

### 3. What is the rationale behind the eligibility for this program?

Table 1 below summarizes the rationale behind BC's eligibility criteria. [\[TOC\]](#)

| Table 1.* Rationale behind eligibility for BC's older adult RSV immunization program |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Program eligibility                                                                  | Rationale                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Individuals 75 years of age and older                                                | <b>NACI strongly recommends</b> that RSV immunization programs should include all adults <b>75 years of age and older</b> as they are at higher risk for complications from RSV disease. <sup>1</sup>                                                                                                                                                                                                                                                                            |
| First Nations, Métis, and Inuit (Indigenous) individuals 60 years of age and older*  | NACI provides the additional consideration that jurisdictions and communities may consider vaccinating individuals in or from First Nations, Inuit and Métis communities at a younger age given available evidence on the increased burden of illness due to intersecting structural and social determinants of health. <sup>1</sup><br><br>Additionally, autonomous decisions should be made by Indigenous Peoples with the support of culturally safe public health and health |

|  |                                                                                                                                                                                                                                                                                                                                                            |
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|  | <p>care partners in accordance with the United Nations Declaration on the Rights of Indigenous Peoples Act (UNDRIP).<sup>1</sup></p> <p>In consultation with <b>First Nations Health Authority</b> and other immunization experts, BC's older adult RSV program includes First Nations, Métis, and Inuit individuals <b>60 years of age and older</b>.</p> |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 4. For which other groups do NACI recommend RSV immunization?

| Table 2.* Other groups to which NACI recommends RSV immunization |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| NACI strong recommendation                                       | <p>While <b>not currently publicly funded</b> for these groups, NACI also strongly recommends RSV immunization for:</p> <ul style="list-style-type: none"> <li>Adults 18 years of age and older who: <ul style="list-style-type: none"> <li>are residents of nursing homes and other chronic care facilities,</li> <li>have had a lung transplant,</li> <li>have had a hematopoietic stem cell transplant (in the previous two years or who remain on immunosuppression),</li> <li>are on home oxygen or require chronic oxygen therapy regardless of living at home or elsewhere, or</li> <li>are receiving dialysis.<sup>2</sup></li> </ul> </li> <li>Adults 65 to 74 years of age who are at <a href="#">increased risk</a><sup>3</sup> of severe RSV disease.<sup>2</sup></li> </ul> <p>Individuals in these groups may benefit from a discussion with their health care provider about purchasing RSV vaccine</p> |
| NACI discretionary recommendation                                | <p>NACI also has a <b>discretionary</b> recommendation for adults 18-64 years of age at increased risk of severe RSV disease to consider receiving vaccine as an individual decision informed by discussion with their health care provider. A shared decision-making approach is recommended for these individuals, recognizing that the optimal timing of vaccination may be uncertain.<sup>2</sup></p> <p>For many younger adults, vaccination may offer greater benefit later in life when their risk of severe RSV is higher; however, for some individuals earlier vaccination may be considered if their risk of severe RSV disease is high.<sup>2</sup></p>                                                                                                                                                                                                                                                    |

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## 5. Where can eligible individuals get the mRESVIA® vaccine?

Given limited quantities of mRESVIA®, the availability of vaccine may vary by region and may include select pharmacies, public health units, and community health centres or nursing stations in First Nations communities.

Eligible long-term care and assisted living facility residents may access their vaccine through their facility. Eligible clients inquiring about vaccination should contact the applicable immunization provider listed above to ensure product availability. [\[TOC\]](#)

## 6. What if an older adult is eligible for publicly funded mRESVIA® vaccine but prefers a different RSV vaccine?

mRESVIA® vaccine is the only RSV vaccine product available through BC's publicly funded program for older adults.

***All RSV vaccines are considered equivalent, and there is no preferential recommendation for any of the authorized RSV vaccines.***

Older adults eligible for this program who prefer a different RSV vaccine may discuss their options for purchasing vaccine with their health care provider. [\[TOC\]](#)

## 7. If an older adult is ineligible for publicly funded RSV vaccine, can they purchase it?

Clients who wish to purchase RSV vaccine should talk to their local pharmacy about the availability and cost of RSV vaccine. [\[TOC\]](#)

## 8. If a client already received an RSV vaccine as an older adult, are they eligible for an additional dose?

Individuals previously vaccinated with **any** RSV vaccine are **not** eligible for an additional dose. The boosting effects of subsequent doses of RSV vaccine are not yet known.<sup>2</sup> [\[TOC\]](#)

# Part B. RSV disease

## 9. What is Respiratory Syncytial Virus (RSV)?

RSV is a common cause of respiratory tract infections that recur throughout life. It is the most common cause of bronchiolitis and pneumonia among infants and young children and is

responsible for more severe clinical outcomes among older adults, particularly among those with comorbidities.<sup>3</sup>

See the [Canadian Immunization Guide](#) for detailed information about RSV epidemiology. [\[TOC\]](#)

## 10. What are the risk factors for severe RSV outcomes in older adults including hospitalization, ICU admission, and death associated with RSV?

**Table 3. Factors that increase risk for severe RSV outcomes in adults**

Risk for severe RSV outcomes including hospitalization, ICU admission, and death increases:

- with increasing age,
- with residence in chronic care or long-term facilities,
- with presence of comorbidities (e.g. cardiorespiratory disease, metabolic disease, immunocompromise, chronic liver or kidney disease, neurologic disease or class 3 obesity defined as BMI of 40 kg/m<sup>2</sup> and over), or
- due to factors that intersect with social determinants of health.<sup>2</sup>

There is more limited data on burden of death associated with RSV. Case fatality rate among those admitted to hospital who are older adults or at higher risk varies between studies but is approximately 5 to 10% and increases with increasing age and presence of comorbidities.<sup>2</sup> [\[TOC\]](#)

## 11. Does having the disease provide you with protective immunity against reinfection?

No. Primary infection does not confer long-term protective immunity against reinfections, which recur throughout life and become more serious with advanced age and comorbidities in older adults.<sup>4</sup> Serological testing is not recommended before or after immunization. [\[TOC\]](#)

## Part C. RSV vaccine

### 12. In Canada, which RSV vaccine preparation(s) are authorized for use?

Three vaccines are currently available to protect older adults and adults at high risk of severe disease from RSV in Canada. A single dose of AREXVY (RSVPreF3), ABRYOVO® (RSVpreF), or mRESVIA® (mRNA-1345) can be used in the authorized age groups.<sup>3</sup>

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**Table 4.\* RSV preparation(s) authorized for use in Canada**

|                                                                                       | <b>AREXVY</b>                                                                                                                                        | <b>ABRYVO®</b>                                                                                                                                                                                                                                                                                      | <b>mRESVIA®</b>                                                                                                                                          |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Manufacturer                                                                          | GlaxoSmithKline Inc. (GSK)                                                                                                                           | Pfizer Canada ULC                                                                                                                                                                                                                                                                                   | Moderna Biopharma Canada Corporation                                                                                                                     |
| Type of vaccine                                                                       | Stabilized protein subunit vaccine                                                                                                                   | Stabilized protein subunit vaccine                                                                                                                                                                                                                                                                  | mRNA vaccine                                                                                                                                             |
| Authorized for prevention of lower respiratory tract disease (LRTD) caused by RSV in: | <ul style="list-style-type: none"> <li>Adults 50 - 59 years of age at increased risk of RSV disease</li> <li>All adults ≥ 60 years of age</li> </ul> | <ul style="list-style-type: none"> <li>Adults ≥ 60 years of age</li> <li>Adults 18 - 59 years of age at increased risk for LRTD caused by RSV</li> <li>Pregnant people 32 - 36 weeks gestational age to protect infants (birth to 6 months) against LRTD and severe LRTD caused by RSV**</li> </ul> | <ul style="list-style-type: none"> <li>Adults ≥ 60 years of age</li> <li>Adults 18 - 59 years of age at increased risk for LRTD caused by RSV</li> </ul> |

\*Information drawn from the [Canadian Immunization Guide](#).<sup>3</sup>

\*\*ABRYVO® is approved for use in pregnancy between 32-36 weeks gestation. However, NACI indicates that this vaccine may be provided beginning at 28 weeks gestation.<sup>2</sup>

### 13. How is mRESVIA® supplied?

**Table 5. How mRESVIA® is supplied**

|                                                                                                                                                                                                                            |                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>mRESVIA® is supplied in a single-dose pre-filled syringe (0.5 mL) with a plunger stopper and a rubber tip cap (without needle).</p>  | <p>Syringes are packaged in a secondary carton containing a total of ten mRESVIA® pre-filled syringes per carton.</p>  |
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\*Information drawn from the [mRESVIA® product monograph](#).<sup>5</sup>

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## 14. How well do RSV vaccines work in older adults (immunogenicity, effectiveness, etc.)?

All RSV vaccines provide good protection against medically attended RSV respiratory tract infections (RTI) and severe RSV outcomes such as hospitalization for adults 60 years of age and older, with approximately an 80% reduction in RSV-related hospitalizations.<sup>3,6,7</sup> All RSV vaccines trigger a strong immune response in adults at increased risk of severe RSV disease.<sup>3</sup>

Although NACI judged that all three vaccines work well from a clinical perspective, there are currently less data available for the safety and efficacy/effectiveness of mRNA-1345 compared to the other vaccines since it was authorized more recently.<sup>1</sup> NACI will continue to monitor emerging evidence as it becomes available.<sup>2</sup> [\[TOC\]](#)

## 15. Can mRESVIA® be given with other vaccines (e.g. COVID-19, influenza, shingles, etc.)?

Yes. Concurrent administration of mRESVIA® with other recommended vaccines can be considered according to basic vaccine principles outlining that, in general, non-live vaccines may be administered concurrently with, or at any time before or after, other vaccines.<sup>2</sup>

While NACI recommends, if possible, RSV vaccines should be given at least six weeks before or after non-seasonal vaccines such as shingles or diphtheria-tetanus vaccines, this is to avoid inadvertent attribution of an adverse event from another vaccine to the RSV vaccine or vice versa. Given the needs of older adults to be protected from multiple vaccine preventable diseases, some of which are seasonal, concurrent administration of an RSV vaccine with other adult vaccines is acceptable and supported.<sup>2</sup> [\[TOC\]](#)

## 16. What are some administration considerations for mRESVIA® including doses and schedule, booster dose recommendations, and optimal timing?

| Table 6. Administration considerations for mRESVIA® |                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Doses and schedule</b>                           | mRESVIA® is given as one <b>0.5 mL</b> dose <b>IM</b> .                                                                                                                                                                                                                                                                                                                                                          |
| <b>Booster dose</b>                                 | <b>No booster doses are recommended at this time.</b> RSV vaccines have been shown to provide protection for at least <b>3 years</b> . There is still uncertainty about the total duration of protection and the need for and timing of any potential booster doses with any of the authorized adult RSV vaccine products. NACI will continue to monitor emerging evidence as it becomes available. <sup>2</sup> |
| <b>Optimal timing of administration</b>             | To reduce morbidity and mortality associated with RSV infection in older adults, RSV vaccines are optimally administered just before the start of the RSV season; however, they can be administered at any time.                                                                                                                                                                                                 |

Given that the vaccine may provide protection for at least 3 years, a single dose at any time may provide protection for **up to three RSV seasons**.<sup>2</sup>

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## 17. What are the vaccine storage and handling considerations for the mRESVIA® vaccine?

Table 7 summarizes the vaccine storage and handling considerations for mRESVIA®. [\[TOC\]](#)

| Table 7.* Storage and handling of mRESVIA® vaccine |                                                                                                                                                                                                                                  |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Storage                                            | Storage conditions                                                                                                                                                                                                               |
| Frozen                                             | -40°C to -15°C until labelled expiry date on vial.                                                                                                                                                                               |
| Refrigerated                                       | +2°C to +8°C for <b>up to 90 days</b> from the date of transfer from frozen storage conditions or until labelled expiry date (whichever comes sooner). Ensure <b>vaccine carton</b> has been updated to reflect new expiry date. |
| Room temperature                                   | Pre-filled syringes may be stored at +8°C to +25°C for a <b>total of 24 hours</b> after removal from refrigerated conditions. Discard pre-filled syringe if not used within this time.                                           |

\*Refer to [Part 4 — Biological Products, RSV Vaccines, mRESVIA®](#) for more information.

## 18. What are the adverse events following mRESVIA® administration?

Overall, AREXVY, ABRYVVO®, or mRESVIA® are well-tolerated and have a good safety profile in adults.<sup>3</sup> [\[TOC\]](#)

| Table 8. Adverse events considerations for mRESVIA®     |                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Adverse event                                           | Description                                                                                                                                                                                                                                                                                                                                        |
| <b>Common adverse events:</b><br>mRESVIA®               | The most common adverse events after RSV vaccination in older adults are usually <b>mild or moderate</b> and include: <ul style="list-style-type: none"> <li><b>Local:</b> pain, axillary lymphadenopathy, swelling, redness.</li> <li><b>Systemic:</b> fatigue, headache, myalgia, arthralgia, chills, nausea and vomiting, and fever.</li> </ul> |
| <b>Other considerations:</b><br>RSV vaccines in general | <b>Guillain-Barré syndrome (GBS):</b> While an increased risk of GBS after vaccination with either <b>RSVpreF</b> or <b>RSVPreF3</b> has been identified in adults 65 years of age and older, this has not been seen with mRESVIA®. <sup>3</sup>                                                                                                   |

|  |                                                                                                                                                                                                                                                                                                                                                            |
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|  | However, the <b>benefits of preventing severe RSV</b> disease in this group are deemed to <b>outweigh the very rare risk of GBS</b> following vaccination, particularly given that RSV infection itself may also increase the risk of GBS. At this time, an increased risk of GBS has not been observed among adults aged less than 65 years. <sup>3</sup> |
|  | <b>Cardiac events:</b> There is currently no evidence to suggesting that mRESVIA® is associated with cardiac adverse events such as myocarditis, pericarditis, or any other type of cardiac inflammatory disease. <sup>8</sup>                                                                                                                             |
|  | Mechanistic investigations into COVID-19 infection and mRNA COVID-19 vaccine-associated myocarditis have pointed to antigen-specific biological factors rather than to the mRNA platform itself. <sup>9</sup>                                                                                                                                              |

NACI will continue to carefully monitor the evidence on the safety of all RSV vaccines as they become available and will update guidance accordingly.<sup>2</sup>

## 19. What are considerations for RSV vaccination in older adults who are immunocompromised or have chronic medical conditions?

| Table 9. Considerations for RSV vaccination in older adults who are immunocompromised or have chronic medical conditions |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RSV disease risk                                                                                                         | <p>Persons with <a href="#">chronic health conditions</a> and immunocompromising conditions are at higher risk of serious outcomes associated with RSV.<sup>3</sup></p> <p>The increased risk of severe RSV disease is likely variable depending on the severity of the immunocompromise at more severe stages of disease expected to be at highest risk.<sup>3</sup></p> <p>Each person who is immunocompromised is different and presents unique factors to consider regarding immunization such as age, presence of one or multiple risk factors, increased risk of exposure to RSV disease or structural and social determinants like limited access to care.<sup>2</sup></p> |
| RSV vaccine considerations                                                                                               | <b>Contraindications:</b> There are no contraindications to the receipt of inactivated vaccines, including mRESVIA®, for people who are immunocompromised. <sup>10</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|  | <p>When offering RSV vaccination, immunization providers should consider <a href="#">General Principles for Immunization of the Immunocompromised</a> in Part 2 — Immunization of Special Populations, of the BC Immunization Manual.<sup>11</sup></p> <p><b>Safety and efficacy:</b> Some immunocompromised populations may have reduced immune response to RSV vaccination as a result of diminished immunological capacity. However, to date, there is limited data on RSV vaccine immunogenicity, safety or efficacy in immunocompromised populations.<sup>2</sup></p> <p><b>Optimal timing of administration:</b> Immunization providers should consult with a client's health care provider or specialist for questions surrounding the optimal timing of administration of RSV vaccine.</p> |
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## Appendix

### A1. How do mRNA vaccines work?

Messenger RNA (mRNA) is made naturally in the body. It delivers the **instructions** on how to make a specific **protein** (antigens are often proteins).

Similar to other vaccines, mRNA vaccines **prepare the immune system to fight off germs** such as bacteria and/or viruses. They do this by teaching the immune system what a virus looks like so that when they “see” it, it can be targeted and destroyed.<sup>12</sup>

One important aspect of mRNA vaccination is that a person is **never exposed to the virus**. Instead, mRNA vaccines introduce a set of **instructions** (i.e., mRNA created in a laboratory) for the body to develop its own immunity towards a virus. See Table A1 below for a summary of how this works<sup>12</sup>:

| Table A1.* How vaccines work: traditional vs. mRNA vaccines                                                                                                                                                                            |                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Traditional inactivated vaccines                                                                                                                                                                                                       | mRNA vaccines                                                                                                                                         |
| 1. <b>Introduces</b> part of a bacteria or virus ( <b>an antigen</b> ) directly into the body.                                                                                                                                         | 1a. Introduces a <b>set of instructions</b> (i.e., mRNA created in a laboratory) on how to <b>create a specific antigen</b> .                         |
|                                                                                                                                                                                                                                        | 1b. <b>Antigen created</b> .                                                                                                                          |
| 2. The antigen triggers an immune <b>response</b> when it comes in contact with the <b>immune system</b> .                                                                                                                             |                                                                                                                                                       |
| 3. This immune <b>response</b> leads to the creation of <b>antibodies</b> against a specific virus or bacteria                                                                                                                         |                                                                                                                                                       |
| 4. <b>Antibodies</b> help the body fight infections by identifying and attaching to the specific virus or bacteria the vaccine is designed to protect against. They tell the immune system that the <b>virus should be destroyed</b> . |                                                                                                                                                       |
| Summary                                                                                                                                                                                                                                |                                                                                                                                                       |
| <b>How traditional inactivated vaccines work:</b><br>Antigen introduced through vaccination → antibodies produced → protection provided.                                                                                               | <b>How mRNA vaccines work:</b> mRNA in vaccine provides instructions to create antigen → antigen created → antibodies produced → protection provided. |

\*Information drawn from the [European Medicines Agency](#) and [CanImmunize.ca](#).

The mRNA introduced into the body from the vaccine **naturally degrades and leaves the body within 2 days**. The antibodies that are naturally created, however, stay in the body after vaccination to help the immune system respond quickly should the body be exposed to the

virus in the future. This allows the body to “tag and destroy” the virus before it can make a person sick.<sup>12</sup> [\[TOC\]](#)

## A2. How do COVID-19 and RSV mRNA vaccines differ?

Table A2 below summarizes the difference between RSV and COVID-19 mRNA vaccines:

| Table A2.* Difference between how RSV mRNA and COVID-19 mRNA vaccines work                                                                                                                                                                                                                                                                                                                                                                              |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p><b>1. Both mRNA vaccines introduce synthetic mRNA containing instructions that tell the body how to produce harmless versions of each virus’ <b>antigens</b>. However, for:</b></p> <ul style="list-style-type: none"> <li>• <b>COVID-19 mRNA vaccine</b>, the antigen is called <b>spike protein</b>, and for</li> <li>• <b>RSV mRNA vaccine</b>, the antigen is called <b>RSV-A glycoprotein F</b></li> </ul> <p style="text-align: center;">↓</p> |  |
| <p><b>2. Antigen created</b></p> <p style="text-align: center;">↓</p>                                                                                                                                                                                                                                                                                                                                                                                   |  |
| <p><b>3. Antibodies produced:</b> With both vaccines, a person’s immune system recognizes these antigens as foreign, and produces <b>antibodies</b>, and activates the body’s immune system to attack it.</p> <p style="text-align: center;">↓</p>                                                                                                                                                                                                      |  |
| <p><b>4. Protection provided:</b> If later on, the person comes into contact with RSV or COVID-19 virus, their immune system will recognize them and be ready to defend the body against them.</p>                                                                                                                                                                                                                                                      |  |

\*Information drawn from the [European Medicines Agency](#) and [CanImmunize.ca](#).

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## References

1. Public Health Agency of Canada. Summary of NACI statement of April 10, 2026: Updated guidance on respiratory syncytial virus (RSV) vaccines for older adults and for adults at high risk of severe RSV disease [guidance] [Internet]. 2026 [cited 2026 Jun 10]. Available from: <https://www.canada.ca/en/public-health/services/publications/vaccines-immunization/national-advisory-committee-immunization-summary-updated-guidance-respiratory-syncytial-virus-vaccines-older-adults-high-risk-severe-rsv-disease.html>
2. Public Health Agency of Canada. An Advisory Committee Statement (ACS) National Advisory Committee on Immunization (NACI) Updated guidance on respiratory syncytial virus (RSV) vaccines for older adults and for adults at high risk of severe RSV disease [Internet]. Ottawa, ON; 2026. Available from: [https://publications.gc.ca/collections/collection\\_2026/aspc-phac/HP40-401-2026-eng.pdf](https://publications.gc.ca/collections/collection_2026/aspc-phac/HP40-401-2026-eng.pdf)
3. Canada PHA of. Respiratory syncytial virus (RSV) vaccines: Canadian Immunization Guide [education and awareness;guidance] [Internet]. 2023 [cited 2026 Jun 10]. Available from: <https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/respiratory-syncytial-virus.html>
4. Public Health Agency of Canada. Statement on the prevention of respiratory syncytial virus disease in older adults [guidance] [Internet]. 2025 [cited 2026 Jul 16]. Available from: <https://www.canada.ca/en/public-health/services/publications/vaccines-immunization/national-advisory-committee-immunization-statement-prevention-rsv-disease-older-adults.html>
5. Moderna Biopharma Canada Corporation. Product Monograph Including Patient Medication Information mRESVIA® [Internet]. Toronto, Ontario: Moderna Biopharma Canada Corporation; 2024 [cited 2026 Jul 15]. Available from: [https://static.modernatx.com/pm/6cef78f8-8dad-4fc9-83d5-d2fbb7cff867/d5e74c61-2c8d-486b-a8ef-fbf72d0f71c1/d5e74c61-2c8d-486b-a8ef-fbf72d0f71c1\\_viewable\\_rendition\\_\\_v.pdf](https://static.modernatx.com/pm/6cef78f8-8dad-4fc9-83d5-d2fbb7cff867/d5e74c61-2c8d-486b-a8ef-fbf72d0f71c1/d5e74c61-2c8d-486b-a8ef-fbf72d0f71c1_viewable_rendition__v.pdf)
6. Updated Evidence for Covid-19, RSV, and Influenza Vaccines for 2025–2026 | New England Journal of Medicine [Internet]. [cited 2026 Jul 9]. Available from: <https://www.nejm.org/doi/full/10.1056/NEJMsa2514268>
7. McConeghy KW, Wilker EH, DeVone F, Skov B, Sun T, Patry E, et al. Vaccine effectiveness of mRNA-1345 against RSV-associated hospitalization and medically attended acute respiratory illness among US veterans, 2025–2026. *Vaccine*. 2026 Aug 13;88:128882. doi:10.1016/j.vaccine.2026.128882
8. ModernaTX, Inc. EU Risk Management Plan (RMP) for mRESVIA For mRESVIA dispersion for injection in pre-filled syringe Respiratory Syncytial Virus mRNA Vaccine (single-stranded 5' capped mRNA encoding the RSV-A glycoprotein F stabilised in the prefusion conformation) [Internet]. Moderna TX, Inc.; 2025. Available from: [https://www.ema.europa.eu/en/documents/rmp/mresvia-epar-risk-management-plan\\_en.pdf](https://www.ema.europa.eu/en/documents/rmp/mresvia-epar-risk-management-plan_en.pdf)
9. Pannucci P, Jefferson SR, Hampshire J, Cooper SL, Hill SJ, Woolard J. COVID-19-Induced Myocarditis: Pathophysiological Roles of ACE2 and Toll-like Receptors. *Int J Mol Sci*. 2023 Mar 11;24(6):5374. doi:10.3390/ijms24065374 PubMed PMID: 36982447; PubMed Central PMCID: PMC10049267.

10. BC Centre for Disease Control. Immunization with Inactivated and Live Vaccines [Guideline] [Internet]. 2018 [cited 2026 Jun 29]. Available from: [https://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%202%20-%20Imms/Part2/Inactivated\\_LiveVaccines.pdf](https://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%202%20-%20Imms/Part2/Inactivated_LiveVaccines.pdf)
11. BC Centre for Disease Control. General Principles for Immunization of the Immunocompromised [Guideline] [Internet]. BC Centre for Disease Control; 2010. Available from: <https://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%202%20-%20Imms/Part2/GeneralPrinciples.pdf>
12. mRNA 101 | CANImmunize Knowledge Centre [Internet]. [cited 2026 Jul 15]. Available from: <https://learn.canimmunize.ca/en/learn-about-immunization/mrna-101>

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