Ontario

Ministry of Health

Infant and High-risk Children Respiratory Syncytial Virus (RSV) Prevention Program Guidance for Health Care Providers – Abrysvo™

Version 1.1 – October 10, 2024

This guidance document for health care professionals provides basic information only. It is not intended to provide or replace medical advice, diagnosis, or treatment. For more details on the respiratory syncytial virus (RSV) vaccine for pregnant individuals, Abrysvo™, please refer to the product monograph authorized by Health Canada.

1. RSV Prevention Products Available in Canada

Health Canada has authorized three safe and effective products to help prevent RSV lower respiratory tract infections in infants:

- a vaccine (Abrysvo™) administered to pregnant individuals, and
- two monoclonal antibody (mAb) immunizing agents (Beyfortus® or Synagis®) given to infants just prior to or during RSV season.

Administration of both the vaccine and a monoclonal antibody is not needed except under specific circumstances (e.g., high-risk infant born to a pregnant person who received the vaccine per recommended timing).

The National Advisory Committee on Immunization (NACI) advises prioritizing the use of the mAb Beyfortus® for infant protection due to its effectiveness, long-lasting protection, and safety profile over vaccinating pregnant individuals. Therefore, Beyfortus® is the preferred method for safeguarding infants. Health care providers caring for pregnant people should provide information on vaccination and monoclonal antibody products.

a) Monoclonal Antibodies

Two injectable mAb products, nirsevimab (Beyfortus®) and palivizumab (Synagis®), are authorized by Health Canada to help protect infants and young children from lower respiratory tract infections caused by RSV.

For the 2024/25 RSV season, Beyfortus® will be the publicly funded product for eligible infants.

Sanofi Pasteur Limited received Health Canada authorization on April 19, 2023, for their RSV mAb, Beyfortus®. Beyfortus® helps prevents severe RSV disease in infants and young children. Monoclonal antibodies do not activate the immune system, as would occur with infection or vaccination (active immunization). Instead, the injected antibodies provide direct and immediate protection against disease (passive immunization).

Since Beyfortus® is a mAb, protection wanes over time as the antibodies are degraded. Therefore, it is most effective for six months after it is given. Beyfortus® does not provide long-term immunity to RSV disease but it helps protect infants when they are most at risk of getting severe RSV disease. As children get older, they are less likely to get severe symptoms from RSV infection.

b) RSV Vaccine for Pregnant People

Abrysvo™ received Health Canada authorization in December 2023. Abrysvo™ is authorized for pregnant persons who are 32-36 weeks pregnant and will deliver during RSV season. Abrysvo™ is used to actively immunize pregnant individuals, providing infants with passive maternal antibodies that protect them from severe RSV illness from birth to approximately six months of age as the protection wanes (i.e., antibodies degrade). However, it does not provide the infant with long-term immunity.

2. RSV Vaccine Eligibility

Ontario's publicly funded infant RSV prevention program includes Abrysvo™ for the 2024/25 RSV season to protect infants from severe RSV infection. Individuals must be Ontario residents to be eligible for the publicly funded program. Program eligibility includes pregnant individuals from 32 to 36 weeks gestational age, in consultation with their health care provider.

NACI recommends the mAb product Beyfortus® over the vaccination of pregnant individuals based on its efficacy, duration of protection, and favourable safety profile. As such, Beyfortus® is the recommended approach for protection of infants less than 8 months of age entering or born during their first RSV season. Pregnant individuals and their health care providers should discuss the use of the vaccine in cases where the mAb would not be agreed to or available (e.g., not giving birth in Ontario).

3. RSV Season Start and End

Due to the seasonality of the RSV virus, administration of Abrysvo™ would provide maximum benefit to the infant born just prior to or during the RSV season as the

passive antibodies from the pregnant person would last approximately six months. The RSV season is generally from November to April, peaking in December, with variations in various regions in Ontario and between years.

RSV programs began, administer AbrysvoTM and Beyfortus® upon receipt. The Ministry of Health will communicate the end of the RSV season to inform on the use of AbrysvoTM and Beyfortus®.

4. Administration Schedule

a) Timing

Abrysvo™ is recommended to be administered to eligible pregnant persons from 32-36 weeks gestation, whose infant will be born just prior to or during the RSV season.

The mAb (Beyfortus®) is preferred over RSV vaccine given during pregnancy, per NACI recommendations. If it is anticipated that Beyfortus® will be administered to a healthy infant, then Abrysvo™ in pregnancy may not provide added benefit and is not recommended.

Beyfortus® should still be administered to the following infants whose gestational parent received Abrysvo™:

- Infants who are born less than 2 weeks after administration of Abrysvo™.
- Infants who meet the medical criteria for increased risk from severe RSV disease:
  - All premature infants (i.e., < 37 weeks gestation)
  - Chronic lung disease (CLD), including bronchopulmonary dysplasia, requiring ongoing assisted ventilation, oxygen therapy or chronic medical therapy in the six months prior to the start of RSV season
  - Hemodynamically significant congenital heart disease (CHD) requiring corrective surgery or are on cardiac medication for congestive heart failure or diagnosed with moderate to severe pulmonary hypertension
  - Severe immunodeficiency
  - Down syndrome/Trisomy 21
  - Cystic fibrosis with respiratory involvement and/or growth delay
  - Neuromuscular disease impairing clearing of respiratory secretions
  - Severe congenital airway anomalies impairing the clearing of respiratory secretions

b) Route

Abrysvo™ is administered intramuscularly. The preferred site of administration is the deltoid region of the upper arm. Do not administer the RSV vaccine intravenously, intradermally, or subcutaneously.

c) Number of Doses

Abrysvo™ is approved and recommended for administration as a single 0.5 mL dose. Sufficient evidence does not exist to determine the need for additional doses in subsequent pregnancies.

d) Co-administration with Other Vaccines

Concurrent administration of Abrysvo™ to pregnant persons with tetanus, diphtheria, and acellular pertussis (Tdap), COVID-19, and influenza vaccines can be considered. Different vaccines should always be given at different vaccination sites.

5. Contraindications and Precautions

Those with known hypersensitivity or a history of a severe allergic reaction (e.g., anaphylaxis) to any product ingredients, including non-medicinal ingredients or materials in the vaccine's packaging.

Caution should be exercised when administering Abrysvo™ to individuals with bleeding disorders.

Individuals who have a moderate or severe acute illness, with or without fever, should wait until they recover before receiving Abrysvo™. Refer to section 11 for information about Abrysvo™ administration after an RSV infection.

Please refer to the Abrysvo™ product monograph for detailed information on product ingredients, contraindications and precautions.

6. Efficacy

Clinical trial data indicates that the Abrysvo™ vaccine is both safe and effective when administered to pregnant individuals to prevent severe RSV disease in infants from birth up to six months old. The trials included approximately 7,300 pregnant participants who were randomized to receive either Abrysvo™ or a placebo.

Phase 3 trial results demonstrated significant risk reductions: the vaccine reduced the likelihood of infant hospitalization for RSV by 68% within three months after birth and by 57% within six months. Additionally, the vaccine lowered the risk of severe RSV disease in the infant by 82% within three months and 69% within six months after birth, as defined by specific clinical criteria such as respiratory distress and intensive care unit (ICU) admission.

7. Adverse Events

Like any other vaccine or medication, the vaccine may have some side effects, which are usually mild and last only a few days.

Common side effects after the Abrysvo™ vaccine during clinical trials included pain at the injection site, headache, myalgia (aching, tenderness, or soreness in the muscles), and nausea.

While a slightly higher rate of preterm births was observed in the RSV vaccine group compared to the placebo group, this difference lacked statistical significance. Current data cannot definitively establish or dismiss a direct association between the vaccine and preterm birth. Consequently, NACI recommended the vaccine's use on a case-by-case basis in pregnancy.

Please refer to the Abrysvo™ product monograph for more information.

As Abrysvo™ is a new vaccine, its safety and tolerability will continue to be monitored in post-market safety surveillance.

8. Reporting Adverse Events Following Immunization (AEFIs)

As per s.38 of the *Health Protection and Promotion Act,* those administering Abrysvo™ vaccine should ensure that the vaccine recipients or their substitute decision-makers know the need to report AEFIs to their health care provider immediately.

Recipients should be advised to go to the nearest emergency department if severe reactions develop, including the following:

- Hives
- Swelling of the mouth or throat
- Trouble breathing, hoarseness or wheezing
- High fever (over 40°C or 104°F)
- Seizures
- Other serious reactions

Healthcare providers (e.g., physicians, nurses, and midwives) are required by law (i.e., *Health Protection and Promotion Act,* s.38) to report AEFIs associated with the RSV vaccine to their local public health unit. Reports should be made using the Ontario AEFI Reporting Form and faxed to the local public health unit.

9. Health Care Professionals Eligible to Administer Abrysvo™

Physicians, nurse practitioners (NP), registered nurses (RNs), registered practical nurses (RPNs), certain pharmacy professionals, and midwives can administer the RSV vaccine, Abrysvo™, to pregnant individuals.

Before administering an RSV vaccine, including Abrysvo™, health care professionals should discuss administration with their employer. Also, prior to administering the RSV vaccine, a health care professional must ensure they have the required authority, such as a direct order, medical directive or delegation, and the competency to administer the vaccine.

10. Administration After RSV Infection

Administering Abrysvo™ after illness depends on the severity of symptoms. Those with a severe acute illness (including those who have a current RSV infection) with or without a fever should wait until symptoms have subsided before receiving Abrysvo™ vaccination. No specific interval is recommended between RSV infection and RSV vaccination. A minor illness, such as a cold, should not result in the deferral of administration.

11. Observation Post-administration

Vaccine recipients should be observed for at least 15 minutes after immunization; A 30-minute observation period is preferred should concerns regarding possible allergy arise.

12. Preparing Abrysvo™ for Administration

Abrysvo™ is a lyophilized vaccine and must be reconstituted using the vial adapter and the sterile water diluent component provided (other diluents should not be used).

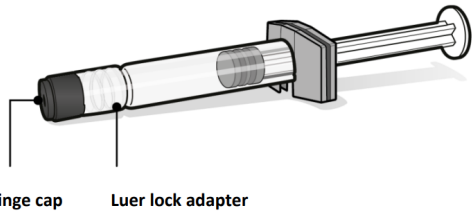
Table 1 - Reconstitution

Vial Size	**Volume of Diluent to be Added to the Vial**	**Approximate Available Volume[1]**	**Concentration per mL[2]**
2 mL	0.65 mL	0.68 mL	120 mcg per 0.5 mL
[1] Total volume in the vial after reconstitution with 0.65 mL Sterile Water diluent. [2] Label Claim Volume of Total RSV Antigen Dose			

The following are the components that come with each Abrysvo™ carton.

Vial containing lyophilized antigen component

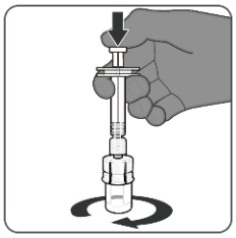
Syringe containing diluent



Vial adapter

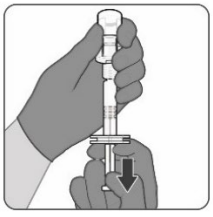
a) Step 1: Attach the vial adapter

- Peel off the top cover from the vial adapter packaging and remove the flip-off cap from the vial.
- While keeping the vial adapter in its packaging, centre over the vial's stopper and connect with a straight downward push. Do not push the vial adapter in at an angle, as it may result in leaking. Remove the packaging.



b) Step 2: Reconstitute lyophilized antigen component to form Abrysvo™

- For all syringe assembly steps, hold the syringe only by the Luer lock adapter. This will prevent the Luer lock adapter from detaching during use.
- Twist to remove the syringe cap, then twist to connect the syringe to the vial adapter. Stop turning when you feel resistance.
- Inject the entire contents of the syringe into the vial. Hold the plunger rod down and gently swirl the vial until the powder is completely dissolved (less than 1 minute). Do not shake.



c) Step 3: Withdraw reconstituted vaccine

- Invert the vial thoroughly and slowly withdraw the entire contents into the syringe to ensure a 0.5 mL dose of Abrysvo™.
- Twist to disconnect the syringe from the vial adapter.
- Attach a sterile needle suitable for intramuscular injection.

d) Step 4: Administration

- Administer the syringe's contents as an intramuscular injection into the deltoid muscle.
- Different injectable vaccines should always be given at different vaccination sites. Do not mix Abrysvo™ with other vaccines or products in the same syringe.

13. Abrysvo™ Packaging

Abrysvo™ is a sterile solution supplied as a single dose of lyophilized powder containing 120 mcg of RSV-stabilized prefusion F protein (60 mcg Subgroup A and 60 mcg Subgroup B antigens) reconstituted with the sterile diluent provided in a pre-filled syringe.

A single dose after reconstitution is 0.5 mL.

Abrysvo™ is available in (product version availability cannot be guaranteed):

- A carton containing one vial of powder, one pre-filled syringe of diluent, and one vial adapter;
- A carton containing ten vials of powder, ten pre-filled syringes of diluent, and ten vial adapters.

The vial stopper, the tip cap, and the plunger stopper of the pre-filled syringe are not made with natural rubber latex.

Product dimensions (L x W x H) are as follows:

- 10-pack (in millimetres): 129 x 76 x 228
- 1-pack (in millimetres): 73 x 35 x 116

14. Cold Chain Requirements

To ensure optimal protection, Abrysvo™ (both the lyophilized antigen powder and diluent) must be maintained at a temperature between +2°C and +8°C in the original carton until administration to protect it from light.

Abrysvo™ should be administered immediately (within four hours) after reconstitution. Store the reconstituted vaccine between +15°C and +30°C. Do not store it under refrigerated conditions (+2°C and +8°C). Do not freeze it. Please refer to the product monograph for more Abrysvo™ storage and handling information.

For additional information please refer to the Vaccine Storage and Handling Guidelines which have been developed to facilitate proper storage and handling of publicly funded vaccines and minimize vaccine wastage as well as promote vaccine safety and effectiveness.

15. Ordering Information

Health care providers should order the RSV vaccine from their usual vaccine source (i.e., Public Health Unit or the OGPMSS.)

16. Reducing Product Wastage

Please refer to the Vaccine Storage and Handling Guidelines for information on vaccine waste reduction best practices.

17. Additional Information and Resources

Healthcare providers looking for more information about RSV, the mAb product, the RSV vaccine, or the province's RSV prevention program can refer to the ministry's RSV website and the appropriate product monograph.

Revision Log

Version	Date	Page	Section	Description of Change
1.0	August 8, 2024			Original Document
1.1	October 10, 2024	3	4a	Added to the bullet list “For the following infants whose parent received Abrysvo, Beyfortus should be administered to”: • second bullet “Infants who meet the medical criteria for increased risk from severe RSV disease: added sub-bullet: “All premature infants (i.e., <37 weeks gestation).”