

# **Abrysvo**<sup>®</sup>

## **1. NAME OF THE MEDICINAL PRODUCT**

Abrysvo

## **2. QUALITATIVE AND QUANTITATIVE COMPOSITION**

RSV stabilised prefusion F antigen (subgroup B)	60 mcg/vial
RSV stabilised prefusion F antigen (subgroup A)	60 mcg/vial

After reconstitution, one dose (0.5 mL) contains:

RSV subgroup A stabilised prefusion F antigen <sup>1,2</sup>	60 micrograms
RSV subgroup B stabilised prefusion F antigen <sup>1,2</sup> (RSV antigens)	60 micrograms

<sup>1</sup>glycoprotein F stabilised in the prefusion conformation

<sup>2</sup>produced in Chinese Hamster Ovary cells by recombinant DNA technology.

For the full list of excipients, see section 6.1.

## **3. PHARMACEUTICAL FORM**

Powder and solvent for solution for injection.

The powder is white.

The solvent is a clear, colourless liquid.

## **4. CLINICAL PARTICULARS**

### **4.1 Therapeutic indications**

Abrysvo is indicated for:

- Passive protection against lower respiratory tract disease caused by respiratory syncytial virus (RSV) in infants from birth through 6 months of age following maternal immunisation during pregnancy.
- Active immunisation of individuals 60 years of age and older for the prevention of lower respiratory tract disease caused by RSV.

### **4.2 Posology and method of administration**

The use of this vaccine should be in accordance with official recommendations.

## Posology

### *Pregnant individuals*

A single dose of 0.5 mL should be administered between weeks 24 and 36 of gestation (see sections 4.4 and 5.1).

### *Individuals 60 years of age and older*

A single dose of 0.5 mL should be administered.

### *Paediatric population*

The safety and efficacy of Abrysvo in children (from birth to less than 18 years of age) have not yet been established. Limited data are available in pregnant adolescents and their infants (see section 5.1).

## Method of administration

Abrysvo is for intramuscular injection into the deltoid region of the upper arm.

The vaccine should not be mixed with any other vaccines or medicinal products.

For instructions on reconstitution and handling of the medicinal product before administration, see section 6.6.

## **4.3 Contraindications**

Hypersensitivity to the active substances or to any of the excipients listed in section 6.1.

## **4.4 Special warnings and precautions for use**

### Traceability

In order to improve the traceability of biological medicinal products, the name and the batch number of the administered product should be clearly recorded.

### Hypersensitivity and anaphylaxis

Appropriate medical treatment and supervision should always be readily available in case of an anaphylactic event following the administration of the vaccine.

### Anxiety-related reactions

Anxiety-related reactions, including vasovagal reactions (syncope), hyperventilation or stress-related reactions may occur in association with vaccination as a psychogenic response to the needle injection. It is important that procedures are in place to avoid injury from fainting.

### Concurrent illness

Vaccination should be postponed in individuals suffering from an acute febrile illness. However, the presence of a minor infection, such as a cold, should not result in the deferral of vaccination.

### Thrombocytopenia and coagulation disorders

Abrysvo should be given with caution to individuals with thrombocytopenia or any coagulation disorder since bleeding or bruising may occur following an intramuscular administration to these individuals.

### Immunocompromised individuals

The efficacy and safety of the vaccine have not been assessed in immunocompromised individuals, including those receiving immunosuppressant therapy. The efficacy of Abrysvo may be lower in immunosuppressed individuals.

### Individuals less than 24 weeks of gestation

Abrysvo has not been studied in pregnant individuals less than 24 weeks of gestation. Since protection of the infant against RSV depends on transfer of maternal antibodies across the placenta, Abrysvo should be administered between weeks 24 and 36 of gestation (see sections 4.2 and 5.1).

### Limitations of vaccine effectiveness

As with any vaccine, a protective immune response may not be elicited after vaccination.

### Excipient

This medicinal product contains less than 1 mmol sodium (23 mg) per dose, that is to say essentially 'sodium-free'.

## **4.5 Interaction with other medicinal products and other forms of interaction**

Abrysvo can be administered concomitantly with seasonal quadrivalent influenza vaccine (QIV, surface antigen, inactivated, adjuvanted). In a randomised study in adults 65 years of age and older, the criteria for non-inferiority of the immune responses in the co-administration versus the separate administration group were met. However, numerically lower RSV A and B neutralising titres and numerically lower influenza A and B haemagglutination inhibition titres were observed when Abrysvo and inactivated adjuvanted seasonal influenza vaccine were co-administered than when they were administered separately. The clinical relevance of this finding is unknown.

A minimum interval of two weeks is recommended between administration of Abrysvo and administration of a tetanus, diphtheria and acellular pertussis vaccine (Tdap). There were no safety concerns when Abrysvo was co-administered with Tdap in healthy non-pregnant women. Immune responses to RSV A, RSV B, diphtheria and tetanus on co-administration were non-inferior to those after separate administration. However, the immune responses to the pertussis components were lower on co-administration compared to separate administration and did not meet the criteria for non-inferiority. The clinical relevance of this finding is unknown.

## **4.6 Fertility, pregnancy and lactation**

### Pregnancy

Data on pregnant women (more than 4,000 exposed outcomes) indicate no malformative nor fetoneonatal toxicity.

Results from animal studies with Abrysvo do not indicate direct or indirect harmful effects with respect to reproductive toxicity (see section 5.3).

In a phase 3 study (Study 1), maternal adverse events reported within 1 month after vaccination were similar in the Abrysvo group (14%) and the placebo group (13%).

No safety signals were detected in infants up to 24 months of age. The incidences of adverse events reported within 1 month after birth in infants were similar in the Abrysvo group (37%) and the placebo group (35%). Major birth outcomes assessed in the Abrysvo group compared to placebo included premature birth (201 (6%) and 169 (5%), respectively), low birth weight (181 (5%) and 155 (4%), respectively) and congenital anomalies (174 (5%) and 203 (6%), respectively).

### Breast-feeding

It is unknown whether Abrysvo is excreted in human milk. No adverse effects of Abrysvo have been shown in breastfed newborns of vaccinated mothers.

### Fertility

No human data on the effect of Abrysvo on fertility are available.

Animal studies do not indicate direct or indirect harmful effects with respect to female fertility (see section 5.3).

## **4.7 Effects on ability to drive and use machines**

Abrysvo has no or negligible influence on the ability to drive and use machines.

## **4.8 Undesirable effects**

### Summary of the safety profile

#### Pregnant individuals

In pregnant women at 24-36 weeks of gestation the most frequently reported adverse reactions were vaccination site pain (41%), headache (31%) and myalgia (27%). The majority of local and systemic reactions in maternal participants were mild to moderate in severity and resolved within 2-3 days of onset.

#### Individuals 60 years of age and older

In individuals 60 years of age and older the most frequently reported adverse reaction was vaccination site pain (11%). The majority of reactions were mild to moderate in severity and resolved within 1-2 days of onset.

### Tabulated list of adverse reactions

The safety of administering a single dose of Abrysvo to pregnant women at 24-36 weeks of gestation (n=3,682) and to individuals 60 years of age and older (n=18,575) was evaluated in phase 3 clinical trials.

Adverse reactions are listed according to the following frequency categories:

Very common ( $\geq 1/10$ );

Common ( $\geq 1/100$  to  $< 1/10$ );

Uncommon ( $\geq 1/1\ 000$  to  $< 1/100$ );

Rare ( $\geq 1/10\ 000$  to  $< 1/1\ 000$ );

Very rare ( $< 1/10\ 000$ );

Not known (cannot be estimated from the available data).

Adverse reactions reported are listed per system organ class, in decreasing order of seriousness.

**Table 1 Adverse reactions following administration of Abrysvo**

System organ class	Adverse drug reactions pregnant individuals ≤49 years	Adverse drug reactions individuals ≥60 years
Immune system disorders		
Hypersensitivity		Very rare
Nervous system disorders		
Headache	Very common	
Guillain-Barré syndrome		Rare
Musculoskeletal and connective tissue disorders		
Myalgia	Very common	
General disorders and administration site conditions		
Vaccination site pain	Very common	Very common
Vaccination site redness	Common	Common
Vaccination site swelling	Common	Common

Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Any suspected adverse event should be reported to the Ministry of Health according to the National Regulation by using an online form <https://sideeffects.health.gov.il/>

**4.9 Overdose**

Overdose with Abrysvo is unlikely due to its single dose presentation.

There is no specific treatment for an overdose with Abrysvo. In the event of an overdose, the individual should be monitored and provided with symptomatic treatment as appropriate.

**5. PHARMACOLOGICAL PROPERTIES****5.1 Pharmacodynamic properties**

Pharmacotherapeutic group: Vaccines, other viral vaccines; ATC code: J07BX05

Mechanism of action

Abrysvo contains two recombinant stabilised RSV prefusion F antigens representing subgroups RSV-A and RSV-B. Prefusion F is the primary target of neutralising antibodies that block RSV infection. Following intramuscular administration, the prefusion F antigens elicit an immune response, which protects against RSV-associated lower respiratory tract disease.

In infants born to mothers who were vaccinated with Abrysvo between weeks 24 and 36 of gestation, protection against RSV-associated lower respiratory tract disease is due to transplacental transfer of RSV neutralising antibodies. Adults 60 years of age and older are protected by active immunisation.

Clinical efficacy*Infants from birth through 6 months of age by active immunisation of pregnant individuals*

Study 1 is a phase 3, multicentre, randomised (1:1), double-blind, placebo-controlled study to assess the efficacy of a single dose of Abrysvo in the prevention of RSV-associated lower respiratory tract disease in infants born to pregnant individuals vaccinated between weeks 24 and 36 of gestation. The need for revaccination with subsequent pregnancies has not been established.

RSV-associated lower respiratory tract illness was defined as a medically attended visit with a reverse transcription-polymerase chain reaction (RT-PCR) confirmed RSV illness with one or more of the following respiratory symptoms: fast breathing, low oxygen saturation (SpO<sub>2</sub> <95%) and chest wall indrawing. RSV-associated severe lower respiratory tract illness was defined as an illness that met the lower respiratory tract illness-RSV criteria plus at least one of the following: very fast breathing, low oxygen saturation (SpO<sub>2</sub> <93%), high-flow oxygen supplementation via nasal cannula or mechanical ventilation, ICU admission for >4 hours and/or failure to respond/unconscious.

In this study, 3,695 pregnant individuals with uncomplicated, singleton pregnancies were randomised to the Abrysvo group and 3,697 to placebo.

Vaccine efficacy (VE) was defined as the relative risk reduction of the endpoint in the Abrysvo group compared to the placebo group for infants born to pregnant individuals who received the assigned intervention. There were two primary efficacy endpoints, assessed in parallel, severe RSV-positive medically attended lower respiratory tract illness and RSV-positive medically attended lower respiratory tract illness, occurring within 90, 120, 150 or 180 days after birth.

Of the pregnant women who received Abrysvo, 65% were White, 20% were Black or African American and 29% were Hispanic/Latino. The median age was 29 years (range 16-45 years); 0.2% of participants were under 18 years of age and 4.3% were under 20 years of age. The median gestational age at vaccination was 31 weeks and 2 days (range 24 weeks and 0 days to 36 weeks and 4 days). The median infant gestational age at birth was 39 weeks and 1 day (range 27 weeks and 3 days to 43 weeks and 6 days).

Vaccine efficacy is presented in Tables 2 and 3.

**Table 2 Vaccine efficacy of Abrysvo against severe medically attended lower respiratory tract illness caused by RSV in infants from birth through 6 months of age by active immunisation of pregnant individuals – Study 1**

Time period	Abrysvo Number of cases N=3,495	Placebo Number of cases N=3,480	VE % (CI) <sup>a</sup>
90 days	6	33	81.8 (40.6, 96.3)
120 days	12	46	73.9 (45.6, 88.8)
150 days	16	55	70.9 (44.5, 85.9)
180 days	19	62	69.4 (44.3, 84.1)

CI = confidence interval; VE = vaccine efficacy

<sup>a</sup> 99.5% CI at 90 days; 97.58% CI at later intervals

**Table 3 Vaccine efficacy of Abrysvo against medically attended lower respiratory tract illness caused by RSV in infants from birth through 6 months of age by active immunisation of pregnant individuals - Study 1**

Time period	Abrysvo Number of cases N=3 495	Placebo Number of cases N=3 480	VE % (CI) <sup>a</sup>
90 days	24	56	57.1 (14.7, 79.8)
120 days	35	81	56.8 (31.2, 73.5)
150 days	47	99	52.5 (28.7, 68.9)
180 days	57	117	51.3 (29.4, 66.8)

CI = confidence interval; VE = vaccine efficacy

<sup>a</sup> 99.5% CI at 90 days; 97.58% CI at later intervals

A post-hoc analysis of VE by maternal gestational age was conducted. For severe medically attended lower respiratory tract illness occurring within 180 days, VE was 57.2% (95% CI 10.4, 80.9) for women vaccinated early in pregnancy (24 to <30 weeks) and 78.1% (95% CI 52.1, 91.2) for women vaccinated later in the pregnancy eligible window (30 to 36 weeks). For medically attended lower

respiratory tract illness occurring within 180 days, VE was 30.9% (95% CI -14.4, 58.9) for women vaccinated early in pregnancy (24 to <30 weeks) and 62.4% (95% CI 41.6, 76.4) for women vaccinated later in the pregnancy eligible window (30 to 36 weeks).

#### *Active immunisation of individuals 60 years of age and older*

Study 2 is a phase 3, multicentre, randomised, double-blind, placebo-controlled study to assess the efficacy of Abrysvo in the prevention of RSV-associated lower respiratory tract illness in individuals 60 years of age and older.

RSV-associated lower respiratory tract illness was defined as RT-PCR confirmed RSV illness with two or more or three or more of the following respiratory symptoms within 7 days of symptom onset and lasting more than 1 day during the same illness: new or increased cough, wheezing, sputum production, shortness of breath or tachypnoea ( $\geq 25$  breaths/min or 15% increase from resting baseline).

Participants were randomised (1:1) to receive Abrysvo (n=18,488) or placebo (n=18,479). Enrollment was stratified by age 60-69 years (63%), 70-79 years (32%) and  $\geq 80$  years (5%). Subjects with stable chronic underlying conditions were eligible for this study and 52% of participants had at least 1 prespecified condition; 16% of participants were enrolled with stable chronic cardiopulmonary conditions such as asthma (9%), chronic obstructive pulmonary disease (7%) or congestive heart failure (2%). Immunocompromised individuals were ineligible.

The primary objective was assessment of vaccine efficacy (VE), defined as the relative risk reduction of first episode of RSV-associated lower respiratory tract illness in the Abrysvo group compared to the placebo group in the first RSV season.

Of the participants who received Abrysvo, 51% were male and 80% were White, 12% were Black or African American and 41% were Hispanic/Latino. The median age of participants was 67 years (range 59-95 years).

At the end of the first RSV season the analysis demonstrated statistically significant efficacy for Abrysvo for reduction of RSV-associated lower respiratory tract illness with  $\geq 2$  symptoms and with  $\geq 3$  symptoms.

Vaccine efficacy information is presented in Table 4.

**Table 4** Vaccine efficacy of Abrysvo against RSV disease - active immunisation of individuals 60 years of age and older – Study 2

Efficacy endpoint	Abrysvo Number of cases N=18,058	Placebo Number of cases N=18,076	VE (%) (95% CI)
First episode of RSV-associated lower respiratory tract illness with $\geq 2$ symptoms <sup>a</sup>	15	43	65.1 (35.9, 82.0)
First episode of RSV-associated lower respiratory tract illness with $\geq 3$ symptoms <sup>b</sup>	2	18	88.9 (53.6, 98.7)

CI – confidence interval; RSV – respiratory syncytial virus; VE – vaccine efficacy

<sup>a</sup> In an exploratory analysis in RSV subgroup A (Abrysvo n=3, placebo n=16) VE was 81.3% (CI 34.5, 96.5); and in RSV subgroup B (Abrysvo n=12, placebo n=26) VE was 53.8% (CI 5.2, 78.8).

<sup>b</sup> In an exploratory analysis in RSV subgroup A (Abrysvo n=1, placebo n=5) VE was 80.0% (CI -78.7, 99.6); and in RSV subgroup B (Abrysvo n=1, placebo n=12) VE was 91.7% (CI 43.7, 99.8).

## **5.2 Pharmacokinetic properties**

Not applicable.

## **5.3 Preclinical safety data**

Non-clinical data reveal no special hazard for humans based on conventional studies of repeated dose toxicity and toxicity to reproduction and development.

# **6. PHARMACEUTICAL PARTICULARS**

## **6.1 List of excipients**

### Powder

Mannitol  
Sucrose  
Sodium chloride  
Tris (hydroxymethyl) aminomethane hydrochloride (Tris-HCl)  
Tromethamine (Tris base)  
Polysorbate 80

### Solvent

Water for injections

## **6.2 Incompatibilities**

In the absence of compatibility studies, this medicinal product must not be mixed with other medicinal products.

## **6.3 Shelf life**

The expiry date of the product is indicated on the packaging materials.

The unopened vial is stable for 5 days when stored at temperatures from 8°C to 30°C. At the end of this period Abrysvo should be used or discarded. This information is used to guide healthcare professionals in case of temporary temperature excursions only.

### After reconstitution

Abrysvo should be administered immediately after reconstitution or within 4 hours if stored between 15°C and 30°C. Do not freeze.

Chemical and physical in-use stability has been demonstrated for 4 hours between 15°C and 30°C. From a microbiological point of view, the product should be used immediately. If not used immediately, in-use storage times and conditions prior to use are the responsibility of the user.

## **6.4 Special precautions for storage**

Store in a refrigerator (2°C - 8°C).

Do not freeze. Discard if the carton has been frozen.

For storage conditions after reconstitution of the medicinal product, see section 6.3.



## **6.5 Nature and contents of container**

### Vial of antigens for Abrysvo (powder) and pre-filled syringe of solvent

Powder for 1 dose in a vial (type 1 glass or equivalent) with a stopper (synthetic chlorobutyl rubber) and a flip off cap

Solvent for 1 dose in a pre-filled syringe (type 1 glass) with a stopper (synthetic chlorobutyl rubber) and a tip cap (synthetic isoprene/bromobutyl blend rubber)

Vial adaptor

### Pack sizes

Pack containing 1 vial of powder (antigens), 1 pre-filled syringe of solvent, 1 vial adaptor with 1 needle or without needles (1 dose pack).

Pack containing 5 vials of powder (antigens), 5 pre-filled syringes of solvent, 5 vial adaptors with 5 needles or without needles (5 dose pack).

Pack containing 10 vials of powder (antigens), 10 pre-filled syringes of solvent, 10 vial adaptors with 10 needles or without needles (10 dose pack).

Not all pack sizes may be marketed.

## **6.6 Special precautions for disposal and other handling**

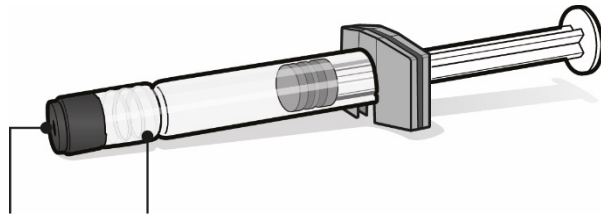
### For use of vial of antigens for Abrysvo (powder), pre-filled syringe of solvent and vial adaptor

Abrysvo must be reconstituted prior to administration by adding the entire contents of the pre-filled syringe of solvent to the vial containing the powder using the vial adaptor.

The vaccine must be reconstituted only with the solvent provided.

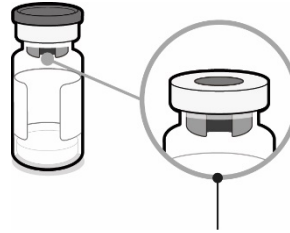
*Preparation for administration*

**Pre-filled syringe containing solvent for Abrysvo**



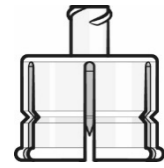
Syringe cap    Luer lock adaptor

**Vial containing antigens for Abrysvo (powder)**



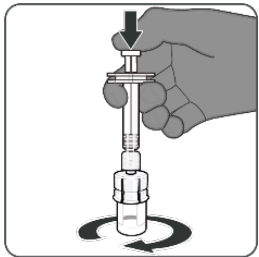
Vial stopper (with flip off cap removed)

**Vial adaptor**



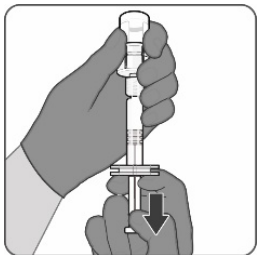
**Step 1. Attach vial adaptor**

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



**Step 2. Reconstitute the powder component (antigens) to form Abrysvo**

- For all syringe assembly steps, hold the syringe only by the Luer lock adaptor. This will prevent the Luer lock adaptor from detaching during use.
- Twist to remove the syringe cap, then twist to connect the syringe to the vial adaptor. 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 (approximately 1-2 minutes). Do not shake.



**Step 3. Withdraw reconstituted vaccine**

- Invert the vial completely 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 adaptor.
- Attach a sterile needle suitable for intramuscular injection.

The prepared vaccine is a clear and colourless solution. Visually inspect the vaccine for large particulate matter and discolouration prior to administration. Do not use if large particulate matter or discolouration is found.

Disposal

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

**7. LICENSE HOLDER**

Pfizer Pharmaceuticals Israel Ltd., 9 Shenkar St., Herzliya Pituach 46725.

Abrysvo LPD CC 011224

**8. REGISTRATION NUMBER**

177-81-37958-00

Approved in 11/2024.