Respiratory syncytial virus (RSV) Vaccination programme for older adults

Acknowledgments to UK Health Security Agency (UKHSA) for use of their training slides

HSC Public Health Agency

Improving Your Health and Wellbeing

Significant messages

- Respiratory syncytial virus (RSV) causes hundreds of thousands of infections across the UK each winter in the young and the old
- RSV is an important cause of lower respiratory tract infections in older adults, resulting in illness (including pneumonia), admissions and deaths
- Vaccines have now been developed which have been rigorously tested for safety and efficacy; Abrysvo® RSV vaccine (Pfizer Limited) was introduced into the UK schedule from 1st September 2024
- Vaccination through the routine offer of a single dose at age 75 years and the catch-up programme (of 75 to 79 year olds) will help protect eligible older adults, particularly if given before winter RSV activity
- From Spring 2026, eligibility was expanded to include all individuals aged 80+, and residents in an older adult care home of any age

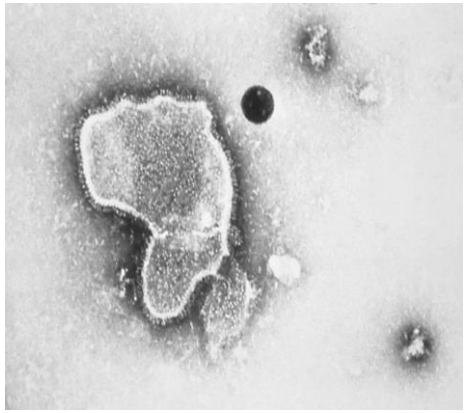
What is RSV

- Respiratory syncytial virus (RSV) is an enveloped, single-stranded RNA virus that belongs to the *Orthopneumovirus* genus of the Pneumoviridae family

- RSV is a common cause of respiratory tract infections

- it usually causes a mild self-limiting respiratory infection in adults and children but can be severe in infants and older adults who are at increased risk of acute lower respiratory tract infection

- RSV is best known for causing bronchiolitis in infants. RSV disease may be under-recognised in older adults.



RSV virion highly magnified by transmission electron microscopic
Image courtesy of the CDC

Transmission of RSV

- RSV is highly communicable, but humans are the only known reservoir
- the incubation period (time between infection and appearance of symptoms) varies from 2 to 8 days (usually 3 to 5 days)
- the virus is spread from respiratory secretions following close contact with an infected person via respiratory droplets or contact with contaminated surfaces or objects
- the virus can survive on surfaces or objects for about 4 to 7 hours

RSV epidemiology

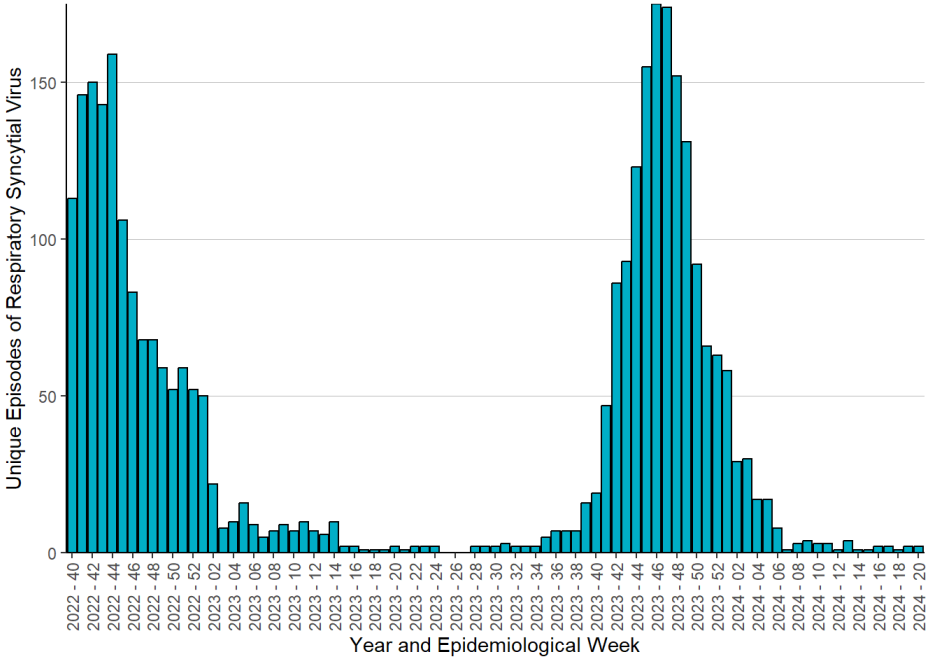
- RSV infection occurs throughout the year but most cases are seen between October and February, peaking in December and declining by March

- whilst the occurrence of the mid-winter peak is predictable, its size varies from year to year

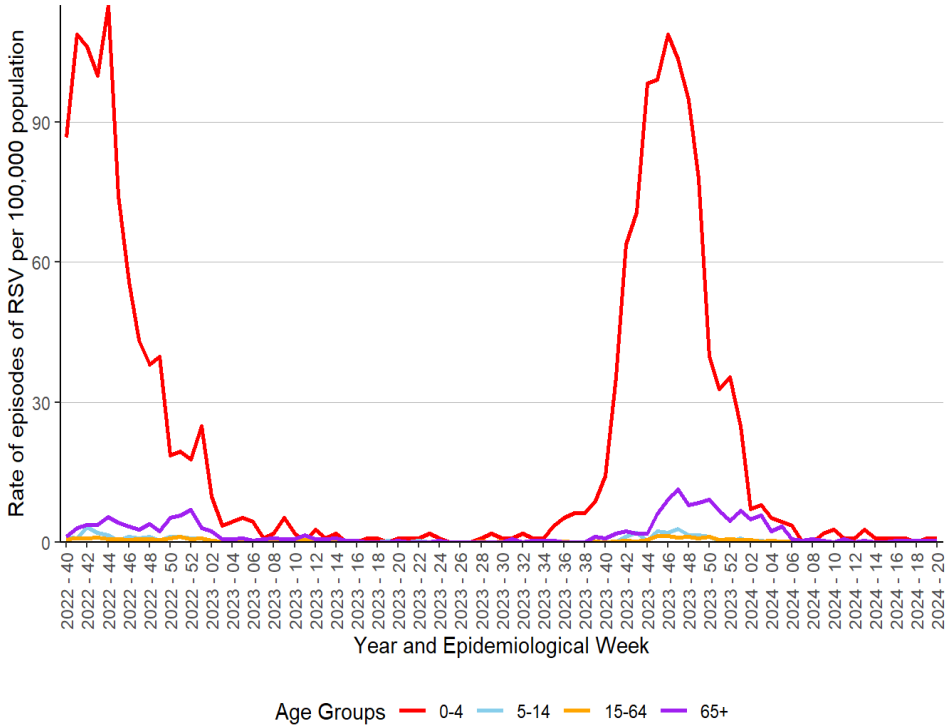
- almost all children will experience RSV in the first 2 years of life and RSV frequently re-infects older children and adults

Episodes of RSV

Weekly number of unique episodes of RSV, by epidemiological week, 2022/23 – 2023/24



Weekly episode rates of RSV per 100,000 population, by age group, by epidemiological week, 2022/23 – 2023/24



- In the 2023/24 influenza season (between October 2023 and May 2024):
  - The highest number of unique episodes was reported in week 46, 2023 (175 episodes).
  - 1,570 episodes of RSV were identified; of which 68% were in the 0-4 age group.
  - Episode rates were highest in the 0-4 age group in week 46, 2023 (108.8 per 100,000 population).

Source: Influenza annual surveillance report, Northern Ireland 2023-2024 | HSC Public Health Agency

RSV epidemiology in adults

- whilst the burden of RSV is well understood in infants and children, the burden of RSV in older adults is comparatively poorly understood and considered to be underestimated by existing routine surveillance

- only a minority of adult infections are diagnosed as RSV due to relative lack of testing and the fact it is not widely recognised as a cause of respiratory infections in adults

- RSV has been estimated to account for 175,000 annual GP episodes in those age 65 years and older in the UK

- it has been estimated in that in each winter season there are 4,000 deaths due to RSV in those aged over 75 years in England and Wales

RSV symptoms

- For most people, RSV infection causes a mild respiratory illness
- RSV can cause a range of symptoms such as rhinitis (runny nose, sneezing or nasal congestion), cough, shortness of breath, fever, lethargy and sometimes fever
- Symptoms can progress to acute lower respiratory tract infection
- Short or long-term complications may include respiratory complications, cardiovascular abnormalities, and bacterial infections such as pneumonia
- RSV may manifest as exacerbations of underlying COPD or cardiovascular disease

Treatment and prevention

- There is no specific treatment suitable for RSV and treatment is therefore aimed at supporting the patient and relieving symptoms

- Transmission can be reduced through standard infection control practices such as respiratory hygiene, hand washing with soap and warm water, and cleaning of surfaces

- Ideally, people with colds should avoid close contact with vulnerable older adults, particularly those with weakened immune systems, and co-morbidities (particularly respiratory and cardiac disease)

Immunisation - Eligibility

- The Joint Committee of Vaccination and Immunisation (JCVI) reviewed evidence from manufacturers on the efficacy, safety and duration of protection of the newly available vaccine products alongside clinical and epidemiological data on the burden of RSV in infants and older adults in the UK

- JCVI advised that a one-off catch-up campaign should be introduced, and a routine programme for those turning 75 years old. This was implemented across the UK in September 2024, with a catch-up programme for 75 to 79 year olds

- From spring 2026 the catch-up programme was expanded to all **adults age 75 and over** and **all residents of care homes for older adults**, in line with further JCVI advice

- An Infant Protection programme was also recommended and from September 2024 vaccination has been offered to all pregnant women from 28 weeks gestation in every pregnancy for infant protection (please see separate training slide set and resources available for this programme)

RSV vaccination of older adults programme

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Aim

The aim of the programme is to reduce the incidence and severity of RSV disease, and hospitalisation as a result of RSV disease, in eligible older adults

Schedule and dose

- The vaccine is given in older adults as a single, one-off dose
- There is not currently data to support second doses in older adults
- The dose is a single (0.5 ml) dose of Abrysvo® pre-F vaccine (Pfizer), using the full volume of the reconstituted vaccine drawn up into the syringe

Eligibility adult programme

Eligibility

The RSV vaccine should be offered to the following cohorts:

- All individuals aged 75 or above
- All residents in care homes for older adults

Abrysvo® respiratory syncytial virus (RSV) vaccine

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Abrysvo® vaccine: pharmaceutical information

- Abrysvo® is the recommended vaccine for RSV vaccination of older adults and is the only vaccine currently available for use within the national programme in the UK
- it is a non-live, bivalent recombinant vaccine
- as it does not contain any live organisms, it cannot cause the disease against which it protects and can be given to immunosuppressed individuals
- Abrysvo® requires reconstitution prior to administration
- after reconstitution, one 0.5ml dose of Abrysvo® contains:
  - RSV subgroup A stabilised prefusion F antigen 60 micrograms
  - RSV subgroup B stabilised prefusion F antigen 60 micrograms
- Abrysvo® is licensed for active immunisation of individuals 60 years of age and older for the prevention of lower respiratory tract disease caused by RSV (Note: individuals aged 60 to 74 are **not** included in the national programme).

Pack contents

- Each pack of Abrysvo® RSV vaccine contains:
- powder for 1 dose in a vial
- solvent (water for injection) in a pre-filled glass syringe with a stopper (synthetic chlorobutyl rubber), luer lock adaptor and tip cap (synthetic isoprene/bromobutyl blend rubber)
- vial adaptor
- 25G 25mm needle (suitable alternatives can be used if required)

How Abrysvo® vaccine works

- The RSV vaccine Abrysvo® is a non-live bivalent recombinant vaccine
- Recombinant means a small piece of DNA from the protein of the virus is taken and inserted into a manufactured cell. As these cells grow the protein is made too. This protein is then purified and put into the vaccine which, when introduced into the body via IM injection, activates the immune system
- It is referred to as bivalent because Abrysvo® contains versions of two proteins found on the surface of the virus called 'RSV subgroup A stabilised prefusion F' and 'RSV subgroup B stabilised prefusion F'
- The vaccine antigen (prefusion F proteins) stimulates the immune system to produce antibodies. When the individual encounters RSV virus, the antibodies neutralise the prefusion F proteins on the virus thus preventing the virus particle from fusing with and entering the host's cells and causing an RSV infection
- The vaccine is sometimes called pre-F because it is based on the prefusion form of the fusion (F) protein which the virus uses to invade human cells

Abrysvo® vaccine: effectiveness

- Abrysvo® was licensed in the UK by the MHRA in November 2023 on the basis of safety and efficacy following a clinical trial of over 17,000 immunocompetent adults aged 60 years and above, 52% of whom had at least one stable chronic underlying condition
- At the end of the first RSV season, analysis demonstrated statistically significant vaccine efficacy (VE) for Abrysvo® for reduction of RSV-associated lower respiratory tract illness with 2 or more symptoms of 65.1% and 3 or more symptoms of 88.9%
- In the second season, the efficacy against 2 or more symptoms was 55.7% and against 3 or more symptoms was 77.8%.
- Abryvso® is licensed for use in Europe, the USA and in many other parts of the world. Over 3 million doses were administered to adults in the USA during winter 2023 to 2024
- Healthcare professionals are asked to report all suspected adverse reactions via the Yellow Card Scheme at: www.mhra.gov.uk/yellowcard

Vaccine safety

A small number of cases of Guillain-Barré syndrome (GBS) have been reported in older adults following vaccination with Abrysvo® in the trials and in post-marketing surveillance in the USA. GBS is a rare and serious condition that affects the nerves. It mainly affects the feet, hands and limbs, causing problems such as numbness, weakness and pain. In severe cases, GBS can cause difficulty moving, walking, breathing and/ or swallowing. GBS is most common following infection, including campylobacter and influenza.

Around 5 cases of GBS were reported for every million doses of Abryvso® given to recipients in the USA (against a background rate of 0.5 per million people vaccinated with vaccines considered not to have association with GBS).

Overall, the benefits of RSV protection in the eligible group are highly favourable relative to the risks of serious adverse reactions.

Healthcare professionals should be alert to the signs and symptoms of GBS, to ensure correct diagnosis in order to initiate adequate supportive care and treatment and to rule out other causes.

- Individuals with a history of GBS should be vaccinated if they are in an eligible group. There is evidence from other vaccines to suggest that having had a prior diagnosis of GBS does not predispose an individual to further episodes of GBS following immunisation
- Cases of GBS that occur following vaccination may occur by chance (the background rate of GBS is 20 per million per year in those aged 70-79 years)

Abrysvo® contraindications and precautions

- Abrysvo® is contraindicated following confirmed anaphylactic reaction to a previous dose or to any of the components of the vaccine
- For a full list of ingredients please refer to the Summary of Product Characteristics
- Minor illness, such as a common cold, without fever or systemic upset are not valid reasons to postpone immunisation
- Immunisation of individuals who are acutely unwell with fever should be postponed until they have recovered fully to avoid confusing the diagnosis of any acute illness by wrongly attributing any sign or symptoms to the adverse effects of the vaccine

Administering Abrysvo® at the same time as seasonal influenza vaccine

- There is some data which shows that in older adults administering Abrysvo® at the same time as seasonal influenza vaccine may reduce the immune response to the RSV vaccine
- There is also data that suggests that the response to the influenza A(H3N2) component of seasonal influenza vaccine (the influenza subtype which most severely affects older adults) may be diminished when RSV and seasonal influenza vaccine are co-administered to older adults
- The clinical significance of any reduced response is unknown, but influenza immune response is known to correlate with protection against infection, and there is emerging data that RSV immune response also correlates with clinical protection
- **It is therefore recommended that these vaccines are not routinely scheduled to be given at the same appointment or on the same day**
- No specific interval is required between administering the vaccines
- If it is thought that the individual is unlikely to return for a second appointment or immediate protection is necessary, Abrysvo® can be administered at the same time as the influenza vaccine

Administering Abrysvo® at the same time as other vaccines

Co-administration with pneumococcal, Shingrix® (shingles), COVID-19 and other inactivated or non-live vaccines

- In line with general advice about co-administration of inactivated and non-live vaccines, Abrysvo® can be safely given concomitantly with pneumococcal, COVID-19 and/or the Shingrix shingles vaccines
- Abrysvo® can be given at any interval before or after these vaccines or other inactivated or non-live vaccines

Co-administration with a live vaccine

- Although live vaccines are not commonly indicated in older adults, Abrysvo® is an inactivated or non-live vaccine so can be given at the same time as any live vaccines

Vaccine ordering

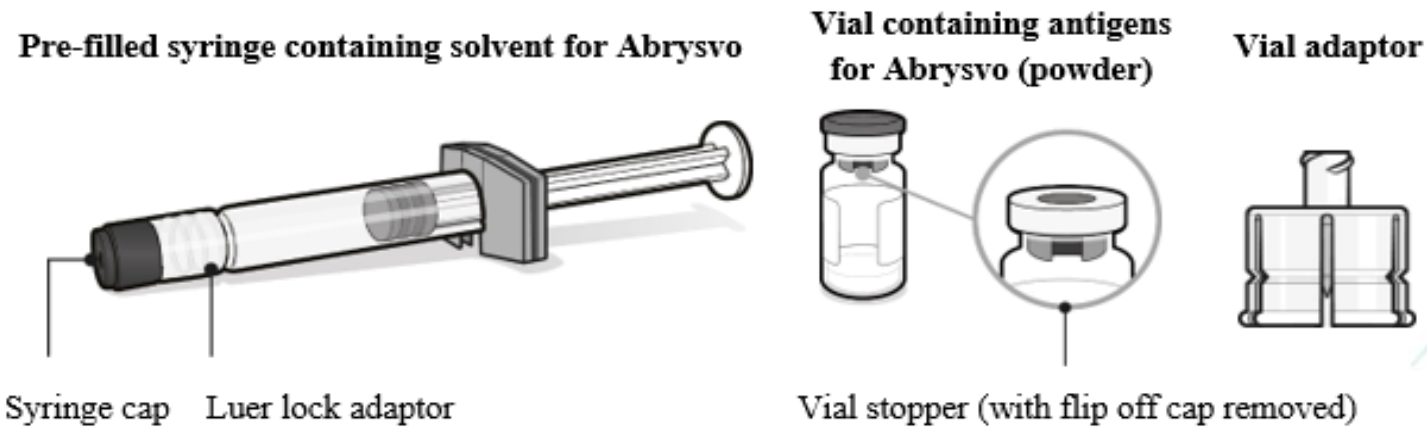
- Vaccines should be ordered regularly throughout the year
- To minimise wastage due to fridge failures or expiry, no more than 2 weeks' worth of stock should be ordered
- Vaccines should be ordered, stored and monitored as described in the Green Book Chapter 3 (Storage, distribution and disposal of vaccines)

- Vaccines required for individuals who are not in the eligible cohort, for example where a clinician has decided that it is clinically appropriate to vaccinate the individual, but they are not within the eligible age cohorts for the national vaccination programme, would require the GP practice to purchase the vaccine directly from the manufacturer and then reclaim the cost of the vaccine

Preparing the Abrysvo® vaccine

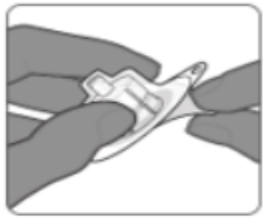
Abrysvo® must be reconstituted prior to the administration by adding the entire contents of the pre-filled syringe of solvent to the vial containing the powder using the vial adaptor.

The vaccine must be reconstituted only with the solvent provided.



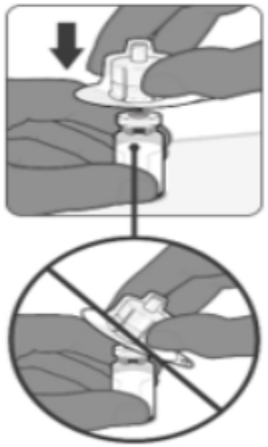
Clear instructions on how to prepare the vaccine for administration can be found in the SmPC and the manufacturer's video. Immunisers are strongly encouraged to watch the video in its entirety before preparing the vaccine for the first time.

Preparing the Abrysvo® vaccine



Step 1. Prepare vial adaptor

- Remove plastic flip off cap from vial and wipe the rubber stopper.
- Open the packaging containing the vial adaptor by peeling the top cover off.
- Do not remove the vial adaptor from its package.



Step 2. Attach the vial adaptor to the vial containing antigens for Abrysvo

- Hold the base of the vial on a flat surface.
- Keep the vial adaptor in the packaging and orient it vertically over the centre of the vial so that the adaptor spike aligns with the centre of the vial's rubber stopper.
- Connect the vial adaptor to the vial with a straight downward push. The vial adaptor will lock into place.
- Do not push vial adaptor in at an angle as this may result in leaking during use.
- Remove the vial adaptor packaging.

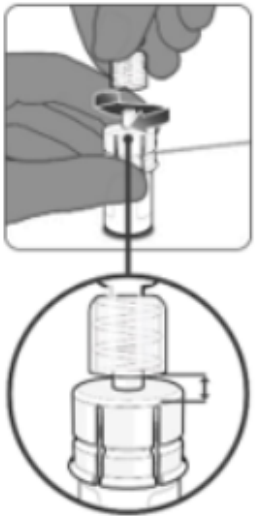
Please note: *The recent update to the Abrysvo® SmPC (08 January 2026) has simplified the steps and accompanying images for preparing the vaccine. However, the original preparation steps remain accurate and provide additional procedural detail that complements the instructional video. For this reason, the original steps have been retained within this training slide deck.*

Preparing the Abrysvo® vaccine

Step 3. Remove syringe cap

• For all syringe assembly steps, hold the syringe only by the Luer lock adaptor located at the tip of the syringe. This will prevent the Luer lock adaptor from detaching during use.

• Remove the syringe cap by slowly turning the cap anti-clockwise while holding the Luer lock adaptor.



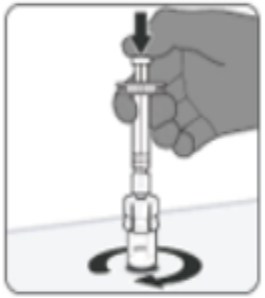
Step 4. Connect syringe to the vial adaptor

• Hold the syringe's Luer lock adaptor and connect it to the vial adaptor by turning clockwise.

• Stop turning when you feel resistance, overtightening the syringe may result in leaking during use.

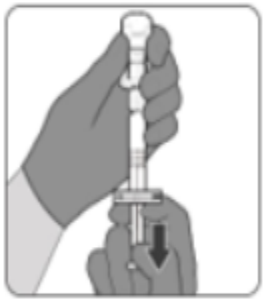
• Once the syringe is securely attached to the vial adaptor, there will be a small space between the top of the vial adaptor and the Luer lock adaptor of the syringe.

Preparing the Abrysvo® vaccine



Step 5. Inject solvent and gently swirl

- Inject the entire contents of the syringe containing the solvent into the vial.
- Do not remove the empty syringe.
- While holding the plunger rod down, gently swirl the vial in a circular motion until the powder is completely dissolved (approximately 1-2 minutes).
- Do not shake.



Step 6. Withdraw the contents

- Invert the vial completely with the vial adaptor and syringe still attached.
- Slowly withdraw the entire contents into the syringe.
- Drawing up all obtainable content ensures a complete 0.5 mL dose for administration.
- Do not pull the plunger rod out.

Preparing the Abrysvo® vaccine

Step 7. Disconnect syringe

• Hold the Luer lock adaptor of the syringe and disconnect the syringe from the vial adaptor by turning anti-clockwise.

Step 8. Attach needle

• Attach a sterile needle suitable for intramuscular injection to the pre-filled syringe by turning clockwise.

• Do not overtighten the needle as this may result in leaking during use.

Step 9. Visual inspection

• 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.

Before administering a vaccine

Before administering a vaccine, the individual should be assessed to ensure that:

- There are no contraindications to the vaccine being given
- They have not experienced any serious reactions to a previous dose or component of the vaccine
- They or their carer is fully informed about the vaccine to be given and understand the vaccination procedure
- They or their carer are aware of possible adverse reactions to the vaccine and how to treat them
- They have consented to having the vaccine

Immunisers should ensure that:

- They have the appropriate knowledge and legal authority to administer the vaccine
- The vaccine has been properly stored and prepared for use and that they know where and how to administer it

Vaccination intramuscular administration

Giving vaccine into the muscle:

- Leads to a better immune response to the vaccine (as the muscle contains the appropriate cells necessary to initiate the immune response)
- Is less likely to cause local reactions than if the vaccine is given under the skin (subcutaneously)

The needle needs to be long enough to ensure the vaccine is injected into the muscle. For this reason, a 25mm needle is being provided for administration of the RSV vaccine. In larger adults, a longer length (for example, 38mm) may be required, and an individual assessment should be made. Abrysvo® packs contain a 25mm 25G needle.

Abrysvo® should be injected into the deltoid muscle in the upper arm. If there is insufficient muscle mass in the deltoid or a particular reason the deltoid muscle is unsuitable, the vaccine should be given into the vastus lateralis muscle in the anterolateral aspect of the thigh

Individuals with bleeding disorders or taking anticoagulation therapy

- Individuals with bleeding disorders may be vaccinated intramuscularly if, in the opinion of a doctor familiar with the individual's bleeding risk, vaccines or similar small volume intramuscular injections can be administered with reasonable safety by this route.
- If the individual receives medication/treatment to reduce bleeding, for example treatment for haemophilia, intramuscular vaccination can be scheduled shortly after such medication or treatment is administered.
- Individuals on stable anticoagulation therapy, including individuals on warfarin who are up-to-date with their scheduled international normalised ratio (INR) testing and whose latest INR is below the upper level of the therapeutic range, can receive intramuscular vaccination.
- A fine needle (23 or 25 gauge) should be used for the vaccination, followed by firm pressure applied to the site without rubbing for at least 2 minutes.
- The individual or their carer should be informed about the risk of haematoma from the injection

Post vaccination

- Following RSV vaccine administration, individuals should be observed for any immediate reactions whilst you are giving them any verbal post vaccination information
- Vaccinees should be given a copy of the patient information leaflet for the vaccine that they have received and any other relevant written information
- They should be given information about possible vaccine reactions, how to treat these, and when and from whom to seek further advice if required
- Generally, symptoms post vaccination resolve within 1 to 2 days without treatment, but antipyretics and/or analgesics can be taken if necessary to relieve any symptoms
- If individuals are concerned about any symptoms following vaccination, they should seek advice from their GP
- Facilities for management of anaphylaxis should be available at all vaccination sites and staff should have undertaken basic life support (BLS) and anaphylaxis training

Adverse reactions following vaccination

Some people can feel unwell following an injection and some people may experience an adverse reaction.

Vaccinees should be informed of the potential expected reactions to Abrysvo®:

- For individuals aged 60 years and above, only vaccination site pain was very commonly reported (reported by 11% of those who received the vaccine in clinical trials)
- Commonly reported reactions (affecting more than 1 in 100 but not as many as 1 in 10 of those receiving the vaccine) were vaccination site redness and swelling
- Although headache and myalgia were commonly reported adverse reactions from the clinical trial of younger adults (aged 49 years or below), these were not reported by the 60 years and above age group

Guillain-Barre Syndrome

Over 12 million doses have been given to older adults in the USA and UK. A rare but serious nervous system condition known as Guillain-Barré syndrome that leads to weakness was reported, around 1 case for every 40,000 to 100,000 doses given, in the six weeks after vaccination.

The same condition also occurs after a number of common infections and some vaccines. If you have symptoms such as tingling, numbness, weakness, sharp pain or pins and needles in your hands, feet, arms or legs, you should seek immediate medical attention.

Overall it is safer for you to have the vaccine than to risk having a potentially serious RSV infection.

Reporting adverse reactions

Abrysvo® is a newly licensed vaccine and is subject to additional monitoring under the **black triangle** labelling scheme. This means that all suspected adverse reactions following administration should be reported to the MHRA using their Yellow CARD reporting scheme at Yellow Card | Making medicines and medical devices safer (mhra.gov.uk).

- Vaccines are carefully monitored to ensure they are safe, not causing untoward side effects and are suitable for the immunisation programme
- MHRA promotes the collection and investigation of adverse reactions through the Yellow Card scheme which is a voluntary reporting system for suspected adverse reactions
- Anyone (vaccine recipients and HCWs) can make a Yellow Card report, even if they are uncertain as to whether a vaccine caused the condition

Suspected reactions following vaccination should be reported to the MHRA via the Yellow Card scheme

Patient resources

Leaflets, posters, stickers for older adults are available.

This includes:

- your guide to the RSV vaccine for older adults
- translated leaflets and accessible versions can be ordered now. Stock will arrive in a few weeks. Place your orders now Public resources | HSC Public Health Agency (hscni.net)

Further information

All UKHSA healthcare practitioner resources relating to RSV vaccination for older adults can be accessed in the UKHSA RSV immunisation programme collection. These include the 'information for healthcare practitioners' document, RSV training slide set and relevant patient leaflets. A separate training side set and information for healthcare practitioners document is also available for the RSV vaccination of pregnant women for infant protection

PHA Healthcare factsheet Health professional resources | HSC Public Health Agency (hscni.net)

Marketing authorisation holder's Summary of product characteristics

Medicines and Healthcare products Regulatory Agency (MHRA): reporting adverse reactions

The Green Book: Immunisation against infectious disease: RSV Green Book Chapter (27a)

Pfizer Abrysvo® vaccine preparation instructional video

UKHSA RSV overview: RSV: symptoms, transmission, prevention, treatment