Medicines & Healthcare products Regulatory Agency

MHRA

Public Assessment Report

National Procedure

Beyfortus 50 mg solution for injection in pre-filled syringe
Beyfortus 100 mg solution for injection in pre-filled syringe

nirsevimab

PLGB 17901/0370-0371

AstraZeneca UK Limited

LAY SUMMARY

Beyfortus 50 mg solution for injection in pre-filled syringe
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nirsevimab

This is a summary of the Public Assessment Report (PAR) for Beyfortus 50 mg and 100 mg solution for injection in pre-filled syringe. It explains how these products were assessed and their authorisation recommended, as well as their conditions of use. It is not intended to provide practical advice on how to use these products.

These products will be referred to as Beyfortus in this lay summary for ease of reading.

For practical information about using Beyfortus, patients should read the Patient Information Leaflet (PIL) or contact their doctor or pharmacist.

What is Beyfortus and what is it used for?
These products have been authorised by MHRA for Great Britain (consisting of England, Scotland and Wales). In coming to its decision, MHRA has relied on a European Commission (EC) decision on 31 October 2022 (EMEA/H/C/005304/0000), in accordance with the advice from the Committee for Medicinal Products for Human Use (CHMP). This is known as the EC Decision Reliance Procedure.

These applications are full-dossier applications. This means that the results of pharmaceutical, non-clinical and clinical tests have been submitted to show that these medicines are suitable for treating the specified indications.

Beyfortus is a medicine given as an injection to protect babies against respiratory syncytial virus (RSV). RSV is a common respiratory virus that usually causes mild symptoms comparable to the common cold. However, especially in babies and older adults, RSV can cause severe illness, including bronchiolitis (inflammation of the small airways in the lung) and pneumonia (infection of the lungs) that may lead to hospitalisation or even death. The virus is usually more common during the winter.

How does Beyfortus work?
Beyfortus contains the active ingredient nirsevimab which is an antibody (a protein designed to attach to a specific target) that attaches to a protein that RSV needs to infect the body. By attaching to this protein, Beyfortus blocks its action, thereby stopping the virus from entering and infecting human cells.

How is Beyfortus used?
The pharmaceutical form of these medicines is solution for injection and the route of administration is intramuscular (into the muscle).

Beyfortus is given by a doctor, pharmacist or nurse as a single injection in the muscle. It is usually given in the outer part of the thigh.

The recommended dose is 50 mg for children weighing less than 5 kg and 100 mg for children weighing 5 kg or more.

Beyfortus should be given before the RSV season. The virus is usually more common during the winter (known as the RSV season). If the child is born during the winter, Beyfortus should be given after birth.

If the child is to have a heart operation (cardiac surgery), he or she may be given an extra dose of Beyfortus after the operation to ensure they have adequate protection over the remainder of the RSV season.

For further information on how Beyfortus is used, refer to the PIL and Summaries of Product Characteristics (SmPCs) available on the Medicines and Healthcare products Regulatory Agency (MHRA) website.

These medicines can only be obtained with a prescription.

The patient's carergiver should ask the administering healthcare practitioner if they have any questions concerning the medicine.

What benefits of Beyfortus have been shown in studies?
Beyfortus was shown to be effective at reducing lower respiratory tract disease caused by RSV in three main studies.

In one study, Beyfortus was compared with placebo (a dummy treatment) in 1,490 healthy children born prematurely and at term (at 35 weeks gestation or more). After receiving Beyfortus during their first RSV season, 1.2% of children (12 out of 994) developed RSV-induced lung disease that required medical attention compared with 5% (25 out of 496) in the placebo group.

In a second study, Beyfortus was compared with placebo in 1,453 children born five or more weeks prematurely (between 29 and 35 weeks gestation). After receiving Beyfortus during their first RSV season, 2.6% of children (25 out of 969) developed RSV-induced lung disease that required medical attention compared with 9.5% (46 out of 484) in the placebo group.

In a third study, Beyfortus was compared with palivizumab (another medicine to prevent RSV-induced lung disease) in children who were either born prematurely, or born at full term but had heart or lung disease which put them at risk of RSV-induced lung disease. After receiving Beyfortus, 4 children (out of 616) developed RSV-induced lung disease that required medical attention compared with 3 children (out of 309) in the group who had palivizumab.

What are the possible side effects of Beyfortus?
For the full list of all side effects reported with these medicines, see Section 4 of the PIL or the SmPCs available on the MHRA website.

If a child gets any side effects, their caregiver should talk to their doctor, pharmacist or nurse. This includes any possible side effects not listed in the product information or the PIL that comes with the medicine. Caregivers can also report suspected side effects directly via the Yellow Card scheme at https://yellowcard.mhra.gov.uk or search for 'MHRA Yellow Card' online. By reporting side effects, caregivers can help provide more information on the safety of these medicines.

The most common side effects with Beyfortus (which may affect up to 1 in 100 children) are rash, injection site reaction (i.e. redness, swelling, and pain where the injection is given) and fever.

Why were Beyfortus approved?
MHRA decided that the benefits are greater than the risks and recommended that these medicines can be approved for use.

What measures are being taken to ensure the safe and effective use of Beyfortus?
As for all newly-authorised medicines, a Risk Management Plan (RMP) has been developed for Beyfortus. The RMP details the important risks of Beyfortus, how these risks can be minimised, any uncertainties about Beyfortus (missing information), and how more information will be obtained about the important risks and uncertainties.

The following safety concerns have been recognised for Beyfortus:
Important identified risks: None
Important potential risks: None
Missing information: Long-term safety

The information included in the SmPC and the PIL is compiled based on the available quality, non-clinical and clinical data, and includes appropriate precautions to be followed by healthcare professionals and patients. Side effects of Beyfortus are continuously monitored and reviewed including all reports of suspected side-effects from patients, their carers, and healthcare professionals.

An RMP and a summary of the pharmacovigilance system have been provided with these applications and are satisfactory.

Other information about Beyfortus
Marketing authorisations were granted in Great Britain on 07 November 2022.

The full PAR for Beyfortus follows this summary.

This summary was last updated in January 2023.

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I. INTRODUCTION

Based on the review of the data on quality, safety and efficacy, the Medicines and Healthcare products Regulatory Agency (MHRA) considered that the applications for Beyfortus 50 mg and 100 mg solution for injection in pre-filled syringe (PLGB 17901/0370-0371) could be approved.

The products are approved for the following indications:
For the prevention of Respiratory Syncytial Virus (RSV) lower respiratory tract disease in neonates and infants during their first RSV season. Beyfortus should be used in accordance with official recommendations.

The active substance, Nirsevimab, is a recombinant neutralising human IgG1κ long acting monoclonal antibody to the prefusion conformation of the RSV F protein which has been modified with a triple amino acid substitution (YTE) in the Fc region to extend serum half life. Nirsevimab binds to a highly conserved epitope in antigenic site Ø on the prefusion protein with dissociation constants KD = 0.12 nM and KD = 1.22 nM for RSV subtype A and B strains, respectively. Nirsevimab inhibits the essential membrane fusion step in the viral entry process, neutralising the virus and blocking cell to cell fusion.

These products have been authorised by MHRA for Great Britain (consisting of England, Scotland and Wales). In coming to its decision, MHRA has relied on a European Commission (EC) decision on 31 October 2022 (EMEA/H/C/005304/0000), in accordance with the advice from the Committee for Medicinal Products for Human Use (CHMP).

For the scientific discussion of the quality, non-clinical and clinical assessment conducted by the European Medicines Agency (EMA), please refer to the European Public Assessment Report, available on the EMA website.

These applications were approved under Regulation 50 of the Human Medicines Regulation 2012, as amended (previously Article 8.3 of Directive 2001/83/EC, as amended).

In line with the legal requirements for children's medicines, the application included a licensing authority decision on the agreement of a paediatric investigation plan (PIP) MHRA-100490-PIP01-22-M01.

At the time of the submission of the application the PIP was not yet completed as some measures were deferred.

In line with the legal requirements for children's medicines, the application included a licensing authority decision on the agreement of a product specific waiver applying to the paediatric population from 2 years to less than 18 years.

The MHRA has been assured that acceptable standards of Good Manufacturing Practice (GMP) are in place for these products at all sites responsible for the manufacture, assembly and batch release of these products.

A Risk Management Plan (RMP) and a summary of the pharmacovigilance system have been provided with these applications and are satisfactory.

Marketing authorisations were granted on 07 November 2022.

II. PRODUCT INFORMATION

SUMMARY OF PRODUCT CHARACTERITICS (SmPC)

The SmPCs are in line with current guidelines and are satisfactory.

PATIENT INFORMATION LEAFLET

The PIL is in line with current guidelines and is satisfactory.

LABEL

The labelling is in line with current guidelines and is satisfactory.

III. QUALITY ASPECTS

MHRA considered that the quality data submitted for these applications is satisfactory.

The grant of marketing authorisations is recommended.

IV. NON-CLINICAL ASPECTS

MHRA considered that the non-clinical data submitted for these applications is satisfactory.

The grant of marketing authorisations is recommended.

V. CLINICAL ASPECTS

MHRA considered that the clinical data submitted for these applications is satisfactory.

The grant of marketing authorisations is recommended.

VI. RISK MANAGEMENT PLAN (RMP)

The applicant has submitted an RMP, in accordance with the requirements of Regulation 182 of The Human Medicines Regulation 2012, as amended. In addition to routine pharmacovigilance and risk minimisation measures, the following additional pharmacovigilance measures have been proposed:

Safety concern	Risk minimisation measures	Pharmacovigilance activities
Long term Safety	None	Routine pharmacovigilance activities beyond adverse reactions reporting and signal detection: • None Additional pharmacovigilance activities: • MELODY (D5290C00004) • MEDLEY (D5290C00005)

This is acceptable.

VII. USER CONSULTATION

A full colour mock-up of the Patient Information Leaflet (PIL) has been provided with the application, in accordance with legal requirements.

The PIL has been evaluated via a user consultation study in accordance with legal requirements. The results show that the PIL meets the criteria for readability as set out in the Guideline on the readability of the label and package leaflet of medicinal products for human use.

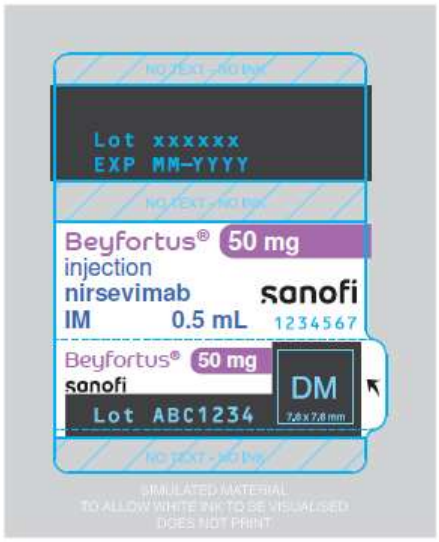
VIII. OVERALL CONCLUSION, BENEFIT/RISK AND RECOMMENDATION

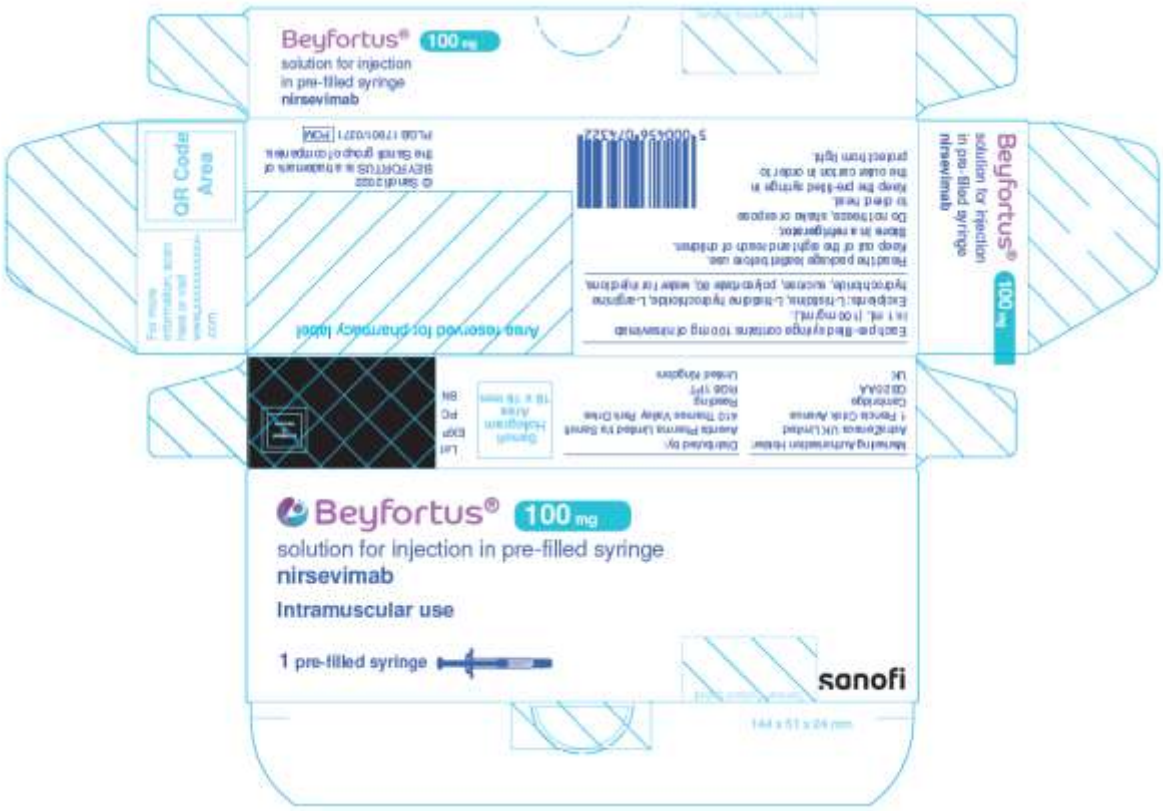
The quality of the products is acceptable, and no new non-clinical or clinical safety concerns have been identified. The benefit/risk balance is, therefore, considered to be positive.

The Summaries of Product Characteristics (SmPCs), Patient Information Leaflet (PIL) and labelling are satisfactory.

In accordance with legal requirements, the current approved UK versions of the SmPCs and PIL for these products are available on the MHRA website.

Representative copies of the labels at the time of UK licensing are provided below.




Beyfortus® 100 mg
solution for injection
in pre-filled syringe
nirsevimab
QR Code Area
Beyfortus® 100 mg
solution for injection in pre-filled syringe
nirsevimab
Intramuscular use
1 pre-filled syringe
sanofi

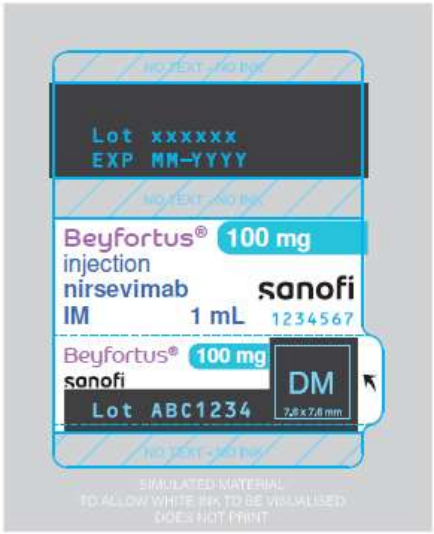

Lot xxxxxx
EXP MM-YYYY
Beyfortus® 100 mg
injection
nirsevimab
IM 1 mL
sanofi
1234567
Beyfortus® 100 mg
sanofi
Lot ABC1234
DM
SIMULATED MATERIAL
TO ALLOW WHITE INK TO BE VISUALISED
DOES NOT PRINT

TABLE OF CONTENT OF THE PAR UPDATE

Steps taken after the initial procedure with an influence on the Public Assessment Report (non-safety variations of clinical significance).

Please note that only non-safety variations of clinical significance are recorded below and in the annexes to this PAR. The assessment of safety variations, where significant changes are made, are recorded on the MHRA website or European Medicines Agency (EMA) website. Minor changes to the marketing authorisation are recorded in the current SmPCs and/or PIL available on the MHRA website.

Application type	**Scope**	**Product information affected**	**Date of grant**	**Outcome**	**Assessment report attached Y/N**