



Public Assessment Report

National Procedure

Lyfnua 45 mg film-coated tablets

gefapixant citrate

PLGB 53095/0091

MERCK SHARP & DOHME (UK) LIMITED

LAY SUMMARY

Lyfnua 45 mg film-coated tablets gefapixant

This is a summary of the Public Assessment Report (PAR) for Lyfnua 45 mg film-coated tablet. It explains how this product was assessed and its authorisation recommended, as well as its conditions of use. It is not intended to provide practical advice on how to use this product.

This product will be referred to as Lyfnua in this lay summary for ease of reading.

This product has been authorised by the Medicines and Healthcare products Regulatory Agency (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 15 September 2023 (EMA/H/C/005476/0000), in accordance with the advice from the Committee for Medicinal Products for Human Use (CHMP). This is known as the EC Decision Reliance Procedure.

This application was approved under Regulation 50 of the Human Medicines Regulation 2012, as amended (previously Article 8(3) of Directive 2001/83/EC, as amended).

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

What is Lyfnua and what is it used for?

This application is a full-dossier application. This means that the results of pharmaceutical, non-clinical and clinical tests have been submitted to show that this medicine is suitable for treating the specified indications.

Lyfnua is a medicine used in adults for chronic cough (cough that lasts longer than 8 weeks) and:

- the cough does not go away even after using other medicines or,
- the reason for the cough is unknown.

How does Lyfnua work?

The active substance in Lyfnua (called gefapixant) blocks the action of nerves that trigger abnormal coughing.

How is Lyfnua used?

The pharmaceutical form of this medicine is film-coated tablets and the route of administration is oral (by mouth).

The recommended dose of Lyfnua is one 45 mg tablet twice every day. The patient's doctor may change how much and how often they take Lyfnua if they have severe kidney failure and are not on dialysis.

The patient should swallow the tablet whole and not break, crush or chew the tablet. The patient can take the tablet with or without food.

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

This medicine can only be obtained with a prescription.

The patient should always take the medicine exactly as their doctor/pharmacist has told them. The patient should check with their doctor or pharmacist if they are not sure.

What benefits of Lyfnua have been shown in studies?

The benefits of Lyfnua were investigated in two main studies involving 1,360 adults with chronic cough, who were given Lyfnua or placebo (a dummy treatment). Lyfnua was shown to be more effective than placebo at lowering the average number of times patients coughed per hour, measured over a 24-hour period. In the first study, after 12 weeks of treatment, the average number of coughs per hour in patients given Lyfnua went from 18.2 to 7.1 (a reduction of 61%) compared with a decrease from 22.8 to 10.3 (a reduction of 55%) in patients given placebo. In the second study, after 24 weeks of treatment, the average number of coughs per hour went from 18.6 to 6.8 (a reduction of 63%) in patients given Lyfnua compared with a decrease from 19.5 to 8.3 (a reduction of 57%) in patients given placebo.

What are the possible side effects of Lyfnua?

For the full list of all side effects reported with this medicine, see Section 4 of the PIL or the SmPC available on the MHRA website.

If a patient gets any side effects, they 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. Patients can also report suspected side effects themselves, or a report can be made on their behalf by someone else who cares for them, directly via the Yellow Card scheme at <https://yellowcard.mhra.gov.uk> or search for 'MHRA Yellow Card' online. By reporting side effects, patients can help provide more information on the safety of this medicine.

Why was Lyfnua approved?

MHRA decided that the benefits are greater than the risks and recommended that this medicine can be approved for use.

What measures are being taken to ensure the safe and effective use of Lyfnua?

As for all newly-authorised medicines, a Risk Management Plan (RMP) has been developed for Lyfnua. The RMP details the important risks of Lyfnua, how these risks can be minimised, any uncertainties about Lyfnua (missing information), and how more information will be obtained about the important risks and uncertainties.

The following safety concerns have been recognised for Lyfnua:

Summary of safety concerns	
Important identified risks	None
Important potential risks	Progression of respiratory tract infections and risk of development of pneumonia
Missing information	Use in patients with comorbid obstructive sleep apnoea Use in pregnancy and lactation

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 Lyfnua 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 this application and are satisfactory.

Other information about Lyfnua

A marketing authorisation was granted in Great Britain on 21 December 2023.

The full PAR for Lyfnua follows this summary.

This summary was last updated in March 2024.

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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 application for Lyfnua 45 mg film-coated tablets (PLGB 53095/0091) could be approved.

The product is approved for the treatment of refractory or unexplained chronic cough.

The active ingredient in Lyfnua 45 mg film-coated tablets is gefapixant (as citrate). Gefapixant is a selective antagonist of the P2X3 receptor. Gefapixant also has activity against the P2X2/3 receptor subtype. P2X3 receptors are ATP-gated ion channels found on sensory C fibres of the vagus nerve in the airways. C fibres are activated in response to inflammation or chemical irritants. ATP is released from airway mucosal cells under conditions of inflammation. Binding of extracellular ATP to P2X3 receptors is sensed as a damage signal by C fibres. Activation of C fibres, which is sensed by the patient as an urge to cough, initiates a cough reflex. Blockade of ATP signalling through P2X3 receptors reduces excessive sensory-nerve activation and excessive cough induced by extracellular ATP.

This product has 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 15 September 2023 (EMA/H/C/005476/0000), 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.

This application was 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 full product specific waiver *P/0380/2019*.

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

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

A marketing authorisation was granted on 21 December 2023.

II. PRODUCT INFORMATION

SUMMARY OF PRODUCT CHARACTERISTICS (SmPC)

The SmPC is in line with current guidelines and was satisfactory.

PATIENT INFORMATION LEAFLET (PIL)

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 this application is satisfactory.

The grant of a marketing authorisation was recommended.

IV. NON-CLINICAL ASPECTS

MHRA considered that the non-clinical data submitted for this application is satisfactory.

The grant of a marketing authorisation was recommended.

V. CLINICAL ASPECTS

MHRA considered that the clinical data submitted for this application is satisfactory.

The grant of a marketing authorisation was 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. The applicant proposes only routine pharmacovigilance and routine risk minimisation measures for all safety concerns. 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 product is acceptable. The non-clinical and clinical data submitted have shown the positive benefit/risk of this product in the treatment of refractory or unexplained chronic cough.

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

In accordance with legal requirements, the current approved GB versions of the SmPC and PIL for this product is available on the MHRA website.

IX. 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 SmPC and/or PIL available on the MHRA website.

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