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Public summary of opinion on orphan designation

Pegunigalsidase alfa for the treatment of Fabry disease

On 12 December 2017, orphan designation (EU/3/17/1953) was granted by the European Commission to Protalix B.V., the Netherlands, for pegunigalsidase alfa for the treatment of Fabry disease.

What is Fabry disease?

Fabry disease is an inherited disease that is caused by the lack of an enzyme called alpha galactosidase A, which breaks down and removes Gb3, a complex molecule containing sugars and fats.

In patients with this condition, large amounts of Gb3 build up in tissues of vital organs, such as the kidneys and heart, leading to kidney failure and heart problems. Gb3 also builds up in the tissues of the skin, eye and nervous system leading to lesions on the skin, clouding of the front part of the eye, pain in the hands and feet and complications affecting the brain.

Fabry disease is a long-term debilitating disease due to recurrent episodes of severe pain not responding to painkillers. It is also life-threatening due to kidney, heart and brain complications.

What is the estimated number of patients affected by the condition?

At the time of designation, Fabry disease affected approximately 2.2 in 10,000 people in the European Union (EU). This was equivalent to a total of around 113,000 people*, and is below the ceiling for orphan designation, which is 5 people in 10,000. This is based on the information provided by the sponsor and the knowledge of the Committee for Orphan Medicinal Products (COMP).

What treatments are available?

At the time of designation, Fabrazyme (agalsidase beta), Galafold (migalastat) and Replagal (agalsidase alfa) were authorised in the EU to treat Fabry disease.

The sponsor has provided sufficient information to show that pegunigalsidase alfa might be of significant benefit for patients with Fabry disease. Data from preliminary studies showed that the medicine reduces nerve damage in the hands and feet, and may be less likely than authorised

*Disclaimer: For the purpose of the designation, the number of patients affected by the condition is estimated and assessed on the basis of data from the European Union (EU 28), Norway, Iceland and Liechtenstein. This represents a population of 515,700,000 (Eurostat 2017).

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treatments to trigger the production of antibodies which can prevent the medicine from working effectively. In addition the medicine is expected to be used in a wider population than migalastat. These assumptions will need to be confirmed at the time of marketing authorisation, in order to maintain the orphan status.

How is this medicine expected to work?

Pegunigalsidase alfa is expected to work as an enzyme replacement therapy. It is expected to replace the human enzyme alpha galactosidase A, which people with Fabry disease are lacking, helping to break down Gb3 and stop it from building up in the patient's tissues.

Pegunigalsidase alfa is produced by a method known as 'recombinant DNA technology': it is made by cells into which a gene (DNA) has been introduced, which makes them able to produce the enzyme. The replacement enzyme has also been modified to reduce the rate at which it is removed from the body, allowing it to act for longer.

What is the stage of development of this medicine?

The effects of pegunigalsidase alfa have been evaluated in experimental models.

At the time of submission of the application for orphan designation, clinical trials with pegunigalsidase alfa in patients with Fabry disease were ongoing.

At the time of submission, pegunigalsidase alfa was not authorised anywhere in the EU for Fabry disease or designated as an orphan medicinal product elsewhere for this condition.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 31 October 2017 recommending the granting of this designation.

Opinions on orphan medicinal product designations are based on the following three criteria:

- the seriousness of the condition;
- the existence of alternative methods of diagnosis, prevention or treatment;
- either the rarity of the condition (affecting not more than 5 in 10,000 people in the EU) or insufficient returns on investment.

Designated orphan medicinal products are products that are still under investigation and are considered for orphan designation on the basis of potential activity. An orphan designation is not a marketing authorisation. As a consequence, demonstration of quality, safety and efficacy is necessary before a product can be granted a marketing authorisation.

For more information

Sponsor's contact details:

Contact details of the current sponsor for this orphan designation can be found on EMA website, on the medicine's rare disease designations page.

For contact details of patients' organisations whose activities are targeted at rare diseases see:

- Orphanet, a database containing information on rare diseases, which includes a directory of patients' organisations registered in Europe;
- European Organisation for Rare Diseases (EURORDIS), a non-governmental alliance of patient organisations and individuals active in the field of rare diseases.

Translations of the active ingredient and indication in all official EU languages[1], Norwegian and Icelandic

Language	Active ingredient	Indication
English	Pegunigalsidase alfa	Treatment of Fabry disease
Bulgarian	Пегунигалсидаза алфа	Лечение на болест на Fabry
Croatian	Pegunigalzidaze alfa	Liječenje Fabryjeve bolesti
Czech	Pegunigalsidáza alfa	Léčba Fabryho choroby
Danish	Pegunigalsidase-alfa	Behandling af Fabrys sygdom
Dutch	Pegunigalsidase alfa	Behandeling van de ziekte van Fabry
Estonian	Pegunigalsidaas alfa	Fabry tõve ravi
Finnish	Pegunigalsidaasi alfa	Fabryn taudin hoito
French	Pegunigalsidase alfa	Traitement de la maladie de Fabry
German	Pegunigalsidase alfa	Behandlung des Fabry-Syndroms
Greek	Πεγκουνιγκαλσιδάση άλφα	Θεραπεία της νόσου του Fabry
Hungarian	Pegunigalzidáz alfa	Fabry betegség kezelése
Italian	Pegunigalsidasi alfa	Trattamento della malattia di Fabry
Latvian	Pegunigalzidāze alfa	Fabrī slimības ārstēšana
Lithuanian	Pegunigalzidazė alfa	Fabry ligos gydymas
Maltese	Pegunigalsidaži alfa	Kura tal-marda ta' Fabry
Polish	Pegunigalzydaza alfa	Leczenie choroby Fabry'ego
Portuguese	Pegunigalsidase alfa	Tratamento da doença de Fabry
Romanian	Pegunigalsidază alfa	Tratamentul bolii Fabry
Slovak	Pegunigalzidáza alfa	Liečba Fabryho choroby
Slovenian	Pegunigalzidaza alfa	Zdravljenje Fabryjeve bolezni
Spanish	Pegunigalsidase alfa	Tratamiento de la enfermedad de Fabry
Swedish	Pegunigalsidas alfa	Behandling av Fabrys sjukdom
Norwegian	Pegunigalsidase alfa	Behandling av Fabrys sykdom
Icelandic	Pegúnigalsídasi alfa	Meðferð Fabry-sjúkdóms

[1] At the time of designation