



European Medicines Agency
Pre-authorisation Evaluation of Medicines for Human Use

Document Date: London, 20 August 2009
Doc.Ref.: EMEA/COMP/160599/2008 Rev.1

Committee for Orphan Medicinal Products

Public summary of positive opinion for orphan designation of [Nle⁴, D-Phe⁷]-alpha-melanocyte stimulating hormone for the treatment of erythropoietic protoporphyria

On 8 May 2008, orphan designation (EU/3/08/541) was granted by the European Commission to Clinuvel UK Limited, United Kingdom, for [Nle⁴, D-Phe⁷]-alfa-melanocyte stimulating hormone for the treatment of erythropoietic protoporphyria.

What is erythropoietic protoporphyria?

Porphyrias are a group of disorders of certain enzymes (proteins that speed up the conversion of certain substances into other substances) responsible for the chemical steps of heme production. Heme is normally present in the body and it is the basic component of haemoglobin, the molecule that carries oxygen in the blood. It is mainly found in the blood, bone marrow, and liver. The signs and symptoms of the disorder vary depending on which chemical step of the heme production that is affected. The porphyrias can be classified according to different criteria, such as the main location of the abnormal enzyme, the leading symptom, or the characteristics of its clinical presentation.

Erythropoietic protoporphyria is characterised by the involvement of blood forming organs, skin and the liver. In erythropoietic protoporphyria there is a lack of one enzyme important for the heme production, and therefore the the red blood cells accumulate substances that they normally do not accumulate. These substances also accumulate in the liver and in the skin. When skin is exposed to sunlight the accumulated substances react with light and cause symptoms such as burning sensation, itching, red skin and ulceration.

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

At the time of designation, erythropoietic protoporphyria affected less than 0.2 in 10,000 people in the European Union (EU)*. This is equivalent to a total of fewer than 10,000 people, and is below the threshold for orphan designation, which is 5 people in 10,000. This is based on the information provided by the sponsor and knowledge of the Committee for Orphan Medicinal Products (COMP).

What treatments are available?

No satisfactory methods exist that were authorised at the time of application.
Avoidance of sunlight or strong light altogether is essential to manage the disease.

How is this medicine expected to work?

The product, [Nle⁴, D-Phe⁷] alpha-melanocyte stimulating hormone is a synthetic product with similar properties to the naturally occurring alpha-melanocyte stimulating hormone or melanotropin. This hormone is a naturally occurring hormone that stimulates the production of eumelanin in skin cells. Eumelanin, the natural black-brown pigment in the skin, has the capacity to protect cells from

*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 27), Norway, Iceland and Liechtenstein. This represents a population of 502,282,000 (Eurostat 2008).

irradiation (sun exposure) and its damaging effects on the cellular genetic material. It is thought that the product stimulates eumelanin production in the skin cells and stops cellular damage by inhibiting (blocking) sun light's interaction with the accumulated substances that are found in the skin of patients with erythropoietic protoporphyria.

What is the stage of development of this medicine?

At the time of submission of the application for orphan designation, clinical trials in patients with erythropoietic protoporphyria were ongoing.

[Nle⁴, D-Phe⁷] alpha-melanocyte stimulating hormone was not authorised anywhere worldwide for erythropoietic protoporphyria or designated as orphan medicinal product elsewhere for this condition, at the time of submission.

According to Regulation (EC) No 141/2000 of 16 December 1999, the Committee for Orphan Medicinal Products (COMP) adopted on 4 March 2008 a positive opinion recommending the grant of the above-mentioned 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 Community) 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:

Clinuvel UK Limited
C/ - Reed Smith
Broadgate Tower, Third Floor
20 Primrose Street
London, EC2A 2RS
United Kingdom
Telephone: +44 20 3116 3000
Telefax: +44 20 3116 3999
E-mail: mail@clinuvel.com

Patients' associations contact points:

AMaPo : Associazione Malati di Porfiria - ONLUS

Via Chianesi 53

00144 Roma

Italy

Telephone: +39 06 52 66 69 28

Telefax: +39 06 52 66 69 28

E-mail: amapo@tiscali.it

British Porphyria Association

14 Mollison Rise

Gravesend

Kent

DA12 4QJ

United Kingdom

Telephone: +44 14 74 36 92 31

E-mail: helpline@porphyria.org.uk

The Swedish Porphyria Association

Riksföreningen mot porfyrisjukdomar

Huddinge University Hospital C2 71

141 86 Stockholm

Sweden

Telephone: + 46 8 71 15 609

Telefax: +46 8 58 58 27 60

E-mail: porfyri@swipnet.se

**Translations of the active ingredient and indication in all EU languages
and Norwegian and Icelandic**

Language	Active Ingredient	Indication
English	[Nle ⁴ , D-Phe ⁷]-alpha-melanocyte stimulating hormone	Treatment of erythropoietic protoporphyria
Bulgarian	[Nle ⁴ , D-Phe ⁷]- алфа-меланоцитостимулиращ хормон	Лечение на еритропоетична протопорфирия
Czech	[Nle ⁴ , D-Phe ⁷]-alfa melanocyty stimulující hormon	Léčba erythropoetické protoporfyrie
Danish	[Nle ⁴ , D-Phe ⁷]-alfa-melanocytstimulerende hormon	Behandling af erythropoietisk protoporfyri
Dutch	[Nle ⁴ , D-Phe ⁷]-alfa-melanocytstimulerend hormoon	Behandeling van erythropeëtische protoporphyrie
Estonian	[Nle ⁴ , D-Phe ⁷]-alfa melanotsüüte stimuleeriv hormoon	Erütropoetilise protoporfüüria ravi
Finnish	[Nle ⁴ , D-Phe ⁷]-alfamelanosyyttejä stimuloiva hormoni	Erythropeettisen protoporfyrin hoito
French	[Nle ⁴ , D-Phe ⁷]-Mélanostimuline alpha	Traitement de la protoporphyrie érythropeïétique
German	[Nle ⁴ , D-Phe ⁷]-alpha-melanozytenstimulierendes Hormon	Behandlung der erythropeetischen Protoporphyrie
Greek	[Nle ⁴ , D-Phe ⁷]άλφα-ορμόνη διέγερσης των μελανοκυττάρων	Θεραπεία της συγγενούς ερυθροποιητικής πορφυρίας
Hungarian	[Nle ⁴ , D-Phe ⁷]-alfa-melanocytastimuláló hormon	Erithropoietikus protoporfiria kezelése
Italian	[Nle ⁴ , D-Phe ⁷]-alfa-melanotropina	Terapia della protoporfiria eritropoietica
Latvian	[Nle ⁴ , D-Phe ⁷]-alfa-melanocītus stimulējošais hormons	Eritropoētiskas protoporfīrijas ārstēšana
Lithuanian	[Nle ⁴ , D-Phe ⁷]-alfa-melanocitus stimuliuojantis hormonas	Eritropoetinės protoporfirijos gydymas
Maltese	[Nle ⁴ , D-Phe ⁷]-Ormon li jistimula l-alfa-melanoċite	Kura tal-protoporfirja eritropojetika
Polish	[Nle ⁴ , D-Phe ⁷] hormon stymulujący melanocyty alfa	Leczenie wrodzonej protoporfirii erythropoetycznej
Portuguese	[Nle ⁴ , D-Phe ⁷]-Hormona estimuladora dos melanocitos alfa-	Tratamento da protoporfiria eritropoietica
Romanian	[Nle ⁴ , D-Phe ⁷]-hormon melanocitostimulator alfa	Tratamentul protoporfiriei eritropoietice
Slovak	[Nle ⁴ , D-Phe ⁷]-alfa melanocyty stimulujúci hormón	Liečba erythropoetickej protoporfýrie
Slovenian	[Nle ⁴ , D-Phe ⁷]-alfa-melanocite stimulirajoči hormon	Zdravljenje eritropoetične porfirije
Spanish	[Nle ⁴ , D-Phe ⁷]-hormona estimulante de los melanocitos	Tratamiento de la protoporfiria eritropoyética

	os alfa	
Swedish	[Nle ⁴ , D-Phe ⁷]-alfa-melanocytstimulerande hormon	Behandling av erythropoietisk protoporfyri
Norwegian	[Nle ⁴ , D-Phe ⁷]-alfa-melanocytstimulerende hormon	Behandling av erythropoietisk protoporfyri
Icelandic	[Nle ⁴ , D-Phe ⁷]-alfa-sortufrumnahvatahormón	Meðferð á erythropoietic prótóporfýríu