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Public summary of opinion on orphan designation

Trifarotene for the treatment of autosomal recessive congenital ichthyosis

On 24 March 2020, orphan designation EU/3/20/2264 was granted by the European Commission to Premier Research Group S.L., Spain, for trifarotene (also known as CD5789) for the treatment of autosomal recessive congenital ichthyosis.

What is autosomal recessive congenital ichthyosis?

Autosomal recessive congenital ichthyosis is an inherited skin disorder caused by changes (mutations) in genes responsible for producing proteins that are important for the formation of the outer layer of the skin. The main feature of the disorder is dry, thick, scaly or flaky skin. In its most severe form, children are born prematurely and have problems such as dehydration and difficulties in maintaining a normal body temperature.

Autosomal recessive congenital ichthyosis is a long-term debilitating disease due to the appearance of symptoms at birth or in early childhood. It can cause life-threatening complications in newborn babies including breathing and feeding problems and infections.

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

At the time of designation, autosomal recessive congenital ichthyosis affected approximately 0.1 in 10,000 people in the European Union (EU). This was equivalent to a total of around 5,000 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, the retinoid medicine acitretin was authorised in some countries of the EU to treat congenital ichthyosis. In addition, basic measures to manage this condition included mechanical scale removal and moisturising the skin.

*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, Iceland, Liechtenstein, Norway and the United Kingdom. This represents a population of 519,200,000 (Eurostat 2020).

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The sponsor has provided sufficient information to show that the medicine might be of significant benefit for patients with autosomal recessive congenital ichthyosis because early data in patients previously treated with retinoid medicines by mouth showed improvement when the medicine was applied to the skin.

This assumption 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?

Trifarotene attaches to a receptor in cells called the retinoic acid receptor gamma, which regulates the production of proteins that are important for the formation of the external layers of the skin. When applied to the skin, the medicine is expected to relieve the symptoms of the condition.

What is the stage of development of this medicine?

The effects of trifarotene have been evaluated in experimental models.

At the time of submission of the application for orphan designation, clinical trials with the medicine in patients with autosomal recessive congenital ichthyosis were ongoing.

At the time of submission, trifarotene was not authorised anywhere in the EU for the treatment of autosomal recessive congenital ichthyosis. Orphan designation of trifarotene had been granted in the United States for congenital ichthyosis. Trifarotene was authorised for treatment of acne in the US and was undergoing evaluation for this use in the EU.

In accordance with Regulation (EC) No 141/2000, the COMP adopted a positive opinion on 20 February 2020, 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.

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	Trifarotene	Treatment of autosomal recessive congenital ichthyosis
Bulgarian	Трифаротен	Лечение на автозомно-рецесивна вродена ихтиоза
Croatian	Trifaroten	Liječenje autosomno recesivne kongenitalne ihtioze
Czech	Trifaroten	Léčba kongenitální autozomálně recesivní ichtyózy
Danish	Trifaroten	Behandling af autosomal recessiv kongenit ichthyosis
Dutch	Trifarotene	Behandeling van autosomaal recessief congenitale ichtyosis
Estonian	Trifaroteen	Kaasasündinud autosoom-retsessiivse ihtüoosi ravi
Finnish	Trifaroteeni	Autosomaalisesti, peittyvästi periytyvän synnynnäisen kalansuomutaudin hoito
French	Trifarotène	Traitement de l'ichtyose congénitale autosomale recessive
German	Trifarotene	Behandlung der autosomal-rezessiven, angeborenen Ichthyose
Greek	Τριφαροτένη	Θεραπεία της αυτοσωματικής υπολειπόμενης συγγενούς ιχθύασης
Hungarian	Trifaroten	Autoszomális recesszív kongenitális ichthyosis kezelése
Italian	Trifarotene	Trattamento dell'ittiosi congenita autosomica recessiva
Latvian	Trifarotēns	Autosomāli recisīvas iedzimtas ihtiozes ārstēšana
Lithuanian	Trifarotenas	Autosominės recesyvinės įgimtos ichtiozės gydymas
Maltese	Trifaroten	Kura tal-ittjosi konġenitali awtosomali reċessiva
Polish	Trifaroten	Leczenie autosomalnie recesywnie dziedziczonej wrodzonej rybiej łuski
Portuguese	Trifaroteno	Tratamento da ictiose autossómica recessiva humana
Romanian	Trifaroten	Tratamentul ihtiozei congenitale autosomal recesive
Slovak	Trifarotén	Liečba autozomálne recesívnej vrodenej ichtyózy
Slovenian	Trifaroten	Zdravljenje avtosomno recesivne vrojene ihtioze
Spanish	Trifaroteno	Tratamiento de la ictiosis congénita de herencia autosómica recesiva
Swedish	Trifaroten	Behandling av autosomal recessiv kongenital iktyos
Norwegian	Trifaroten	Behandling av autosomal recessiv medfødt iktyose
Icelandic	Trifarotene	Meðferð á autósómal víkjandi meðfæddu ichthýósis

[1] At the time of designation