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Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

ciclosporin (implant) for the prevention of rejection of corneal transplant

Please note that this product was withdrawn from the Community Register of designated orphan medicinal products in February 2010 on request of the sponsor.

On 3 November 2006, orphan designation (EU/3/06/415) was granted by the European Commission to Dr Manfred Zoltobrocki, Germany, for ciclosporin (implant) for the prevention of rejection of corneal transplant.

The sponsorship was transferred to Lux Biosciences GmbH, Germany, in December 2006.

What is rejection of corneal transplant?

After transplantation of the cornea (the round transparent part of the eye, covering the iris and the pupil), there is a risk that the transplanted tissue (graft) will not be accepted by the patient's immune system (the body's natural defence system), which would lead to a condition called "transplant rejection". The cornea does not have blood vessels, so it is usually difficult for white blood cells and antibodies (cells and molecules of the immune system that mediate the rejection process) to reach it and activate rejection mechanisms. For this reason, rejection tends to occur less frequently in corneal transplants compared to other organs that do have blood vessels, such as the kidney, but it is still a feared potential complication as it can lead to loss of vision in the affected eye. Rejection of corneal transplant is chronically debilitating.

What is the estimated number of patients at risk of developing the condition?

At the time of designation, the number of patients at risk of rejection of corneal transplant was estimated to be less than 1 people in 10,000 in the European Union (EU) *. This is equivalent to a total of fewer than 46,000 people, which is below the threshold for orphan designation, which is 5 people in

*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 459,700,000 (Eurostat 2004).

10,000. This is based on the information provided by the sponsor and the knowledge of the Committee for Orphan Medicinal Products (COMP).

What methods of prevention are available?

Eye drops containing corticosteroids (substances that dampen the activity of the immune system) were commonly prescribed after corneal transplantation to prevent rejection, at the time of application.

Satisfactory argumentation has been submitted by the sponsor to justify the assumption that ciclosporin (implant) might be of potential significant benefit for prevention of rejection of corneal transplant in particular with regards to major contribution to patient care. This assumption will have to be confirmed at the time of marketing authorisation. This will be necessary to maintain the orphan status.

How is this medicine expected to work?

Ciclosporin is an immunosuppressant, which means that it decreases the activity of the cells of the immune system, such as the white blood cells and the cells that produce antibodies. In this case it is administered locally (only to the affected eye) via an implant. According to the sponsor, the ciclosporin implant will decrease the risk of rejection of corneal transplants.

What is the stage of development of this medicine?

The effects of ciclosporin (implant) were evaluated in experimental models. At the time of submission of the application for orphan designation, no clinical trials in patients with risk of rejection of corneal transplant were initiated.

Ciclosporin (implant) was not authorised anywhere worldwide for the prevention of rejection of corneal transplant, nor 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 October 2006 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 European Union) 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

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Translations of the active ingredient and indication in all official EU languages¹, Norwegian and Icelandic

Language	Active Ingredient	Indication
English	Ciclosporin (implant)	Prevention of rejection for corneal transplant
Czech	Ciclosporin (implantát)	Prevence rejekce transplantátu rohovky
Danish	Ciclosporin (implantat)	Forebyggelse af afstødning af hornhindetransplantat
Dutch	Ciclosporine (implantaat)	Afstotingspreventie bij corneatransplantatie
Estonian	Tsüklosporiin (implantaat)	Siirdatud sarvkesta äratõuke profülaktika
Finnish	Siklosporiini (implantaatti)	Sarveiskalvosiirteen hylkimisen estoon
French	Ciclosporine (implant)	Prévention du rejet de greffe de cornée
German	Ciclosporin (Implantat)	Prävention einer Hornhauttransplantatabstoßung
Greek	Κυκλοσπορίνη (εμφύτευμα)	Πρόληψη απόρριψης για μεταμοσχεύσεις κερατοειδούς
Hungarian	Cyclosporin (implantátum)	A beültetett szaruhártya kilökődésének megelőzése
Italian	Ciclosporina (impianto)	Prevenzione del rigetto nel trapianto di cornea
Latvian	Ciklosporīns (implants)	Acs zīlītes transplantāta atgrūšanas novēršana
Lithuanian	Ciklosporinas (implantas)	Ragenos transplantato atmetimo prevencija
Polish	Cyklosporyna (implant)	Zapobieganie odrzuceniu przeszczepu rogówki
Portuguese	Ciclosporina (implante)	Prevenção de rejeição do transplante da córnea
Slovak	Cyklosporín (implantát)	Prevenca odvrhnutia transplantátu očnej rohovky
Slovenian	Ciklosporin (vstavek)	Preprečevanje zavrnitvene reakcije pri presaditvi roženice
Spanish	Ciclosporina (implante)	Prevención del rechazo del trasplante de córnea
Swedish	Ciklosporin (implantat)	Profylax av avstötning för hornhinnetransplantat
Norwegian	Ciklosporin (implantat)	Forebygging av avstøtning av hornhinnetransplantat
Icelandic	Cíklósporín (vefjalyf)	Vörn gegn höfnun á hornhimnuígræðslu

¹ At the time of designation