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Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-benzoic acid for the treatment of Duchenne muscular dystrophy

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Rev.6: transfer of sponsorship	4 March 2015
Disclaimer Please note that revisions to the Public Summary of Opinion are purely administrative updates. Therefore, the scientific content of the document reflects the outcome of the Committee for Orphan Medicinal Products (COMP) at the time of designation and is not updated after first publication.	

On 27 May 2005, orphan designation (EU/3/05/278) was granted by the European Commission to The Matthews consultancy Ltd, UK, for 3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-benzoic acid for the treatment of Duchenne muscular dystrophy.

The sponsorship was transferred to Voisin Consulting S.A.R.L., France, in May 2007 and subsequently to PTC Therapeutics Limited, United Kingdom in April 2012. In October 2014 the sponsorship was transferred to PTC Therapeutics International Limited, Ireland.

What is Duchenne muscular dystrophy?

Duchenne muscular dystrophy is an inherited genetic disease with onset usually before the age of 6. It is characterised by symmetrical progressive diminishing and weakness of the muscles, first at the height of the pelvis and legs, later on also the muscles of the chest and arms are involved. Genes located on structures present in each cell of the body (the so-called chromosomes), carry the genetic information that determines the characteristics of each individual. In humans, the so-called X and Y-chromosomes determine the sex, but carry also other genetic information. Duchenne muscular dystrophy is caused by an abnormality of a gene located on the X chromosome and thus it affects

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mainly boys. This gene is responsible for the production of a protein, the so-called dystrophin, in the muscle cells. This means that patients suffering from this condition do not produce the dystrophin protein or produce a non functional dystrophin. Duchenne muscular dystrophy is chronically debilitating and life-threatening.

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

At the time of designation, Duchenne muscular dystrophy affected approximately 0.36 in 10,000 people in the European Union (EU). This was equivalent to a total of around 17,000 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 submission of the application for orphan designation, no satisfactory method had been authorised in the European Union for treatment of the condition. Treatment of patients with Duchenne muscular dystrophy primarily involves physiotherapy as supportive treatments.

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?

3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-benzoic acid is a medicinal product which might overcome a specific type of abnormality present in the dystrophin gene of some Duchenne patients. Thus, it could enable the production of functional dystrophin protein in the muscle cells of this group of patients.

What is the stage of development of this medicine?

The evaluation of the effects of 3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-benzoic acid in experimental models is ongoing.

At the time of submission of the application for orphan designation, no clinical trials in patients with Duchenne muscular dystrophy were initiated.

3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-benzoic acid was not marketed anywhere worldwide for Duchenne muscular dystrophy, at the time of submission. Orphan designation of 3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-benzoic acid was granted in the United States for treatment of muscular dystrophy resulting from premature stop mutations in the dystrohin gene.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 7 April 2005 recommending the granting of this designation.

[*]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 25), Norway, Iceland and Liechtenstein.
At the time of designation, this represented a population of 466,600,000 (Eurostat 2005).

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:

PTC Therapeutics International Limited
77 Sir John Rogerson's Quay
Dublin 2
Ireland
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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	(3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-benzoic acid	Treatment of Duchenne muscular dystrophy
Bulgarian	(3-[5-(2-флуоро-фенил)-[1,2,4]оксадиазол-3-ил]-бензоена киселина	Лечение на мускулна дистрофия на Дюшен (Duchenne)
Croatian	3-[5-(2-fluoro-fenil)-[1,2,4]oksadiazol-3-il]-benzoatna kiselina	Liječenje Duchenneove mišićne distrofije
Czech	(3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-benzoic acid	Léčba pacientů s Duchennovou muskulární dystrofií
Danish	(3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-benzoic acid	Behandling af Duchenne muskuldystrofi
Dutch	(3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-benzoic zuur	Behandeling van Duchenne spierdystrofie
Estonian	(3-[5-(2-floorfenüü)-[1,2,4]oksadiasool-3-üül]-benzoiinhape	Duchenne'i lihasdüstroofia ravi
Finnish	(3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-bentsoehappo	Duchennen lihasdystrofian hoito
French	(3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-benzoic acid	Traitement de la dystrophie musculaire de Duchenne
German	(3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-benzoic acid	Behandlung von Duchenne-Muskeldystrophie
Greek	(3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-benzoic acid	Θεραπεία της μυϊκής δυστροφίας Duchenne
Hungarian	(3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-benzoesav	Duchenne dystrophia a kezelése
Italian	(3-[5-(2-fluoro-fenil)-[1,2,4]ossadiazolo-3-il]-acido benzoico	Trattamento di distrofia muscolare di tipo Duchenne
Latvian	(3-[5-(2-fluoro-fenil)-[1,2,4]oksadiazol-3-il]-benzoskābe	Dušēna muskuļu distrofijas ārstēšana
Lithuanian	(3-[5-(2-fluoro-fenil)-[1,2,4]oksadiazolo-3-il]-benzoinė rūgštis	Duchenne (Diušeno) raumenų distrofijos gydymas
Maltese	3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-benzoic acid	Kura tad-distrofija muskolari tat-tip Duchenne
Polish	Kwas (3-[5-(2-fluoro-fenylo)-[1,2,4]oksadiazol-3-yl]-benzoesowy	Leczenie zaniku mięśni typu Duchenne'a
Portuguese	Acido (3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]benzoico	Tratamento da distrofia muscular de Duchenne
Romanian	3-[5-(2-fluor-fenil)-[1,2,4]oxadiazol-3-il]-acid benzoic	Tratamentul distrofiei musculare Duchenne
Slovak	(3-[5-(2-fluoro-fenyl)-[1,2,4]oxadiazol-3-yl]-benzoová kyselina	Liečba Duchenneovej muskulárnej dystrofie

[1] At the time of transfer of sponsorship

Language	Active ingredient	Indication
Slovenian	(3-[5-(2-fluoro-fenil)-[1,2,4] oksadiazol-3-yl]-benzojeva kislina	Zdravljenje Duchennove mišične distrofije
Spanish	ácido (3-[5-(2-fluoro-phenyl)-[1,2,4]oxadiazole-3-yl]-benzoico	Tratamiento de la distrofia muscular de Duchenne
Swedish	(3-[5-(2-fluoro-fenyl)-[1,2,4]oxadiasol-3-yl]-bensoesyra	Behandling av Duchennes muskeldystrofi (DMD)
Norwegian	(3-[5-(2-fluoro-fenyl)-[1,2,4]oksadiazol-3-yl]-benzosyre	Behandling av Duchennes muskeldystrofi
Icelandic	(3-[5-(2-flúoró-pfenýl)-[1,2,4]oxadíazól-3-yl]-benzósýra	Meðferð á Duchenne vöðvarýrnun