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Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Methylthioninium for the treatment of progressive non-fluent aphasia

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Rev.1: transfer of sponsorship	20 March 2012
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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 26 November 2010, orphan designation (EU/3/10/806) was granted by the European Commission to Dr Hans Moebius, United Kingdom, for methylthioninium for the treatment of progressive non-fluent aphasia.

The sponsorship was transferred to Prof. Claude Wischik, United Kingdom, in February 2012.

What is progressive non-fluent aphasia?

Progressive non-fluent aphasia is a brain disorder that affects the patient's ability to speak fluently. The patient may lose the ability to speak correctly, start mispronouncing words or find it difficult to remember the right words. This worsens over time until the patient is unable to speak. Behaviour may also change, with the patient losing the ability to control or adjust their behaviour in different situations.

The exact cause of the disease is unclear, but is thought to be related to the abnormal clumping together of proteins in the brain called 'tau', damaging different parts of the brain. The parts of the brain that are affected are the frontal and temporal (side) lobes.

Progressive non-fluent aphasia is a debilitating disease that is life threatening because of its damaging effects on the brain.



What is the estimated number of patients affected by progressive non-fluent aphasia?

At the time of designation, progressive non-fluent aphasia affected approximately 0.25 in 10,000 people in the European Union (EU). This was equivalent to a total of around 13,000 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 the knowledge of the Committee for Orphan Medicinal Products (COMP).

What treatments are available?

No satisfactory methods of treatment were authorised at the time of application. Patients were supported in their day-to-day activities by caregivers with help from experts such as psychologists, physiotherapists and speech therapists.

How is this medicine expected to work?

Methylthioninium is expected to work by dissolving the abnormal tangles of tau proteins in the brain of patients who have progressive non-fluent aphasia, thereby slowing down or reversing the symptoms of the disease.

What is the stage of development of this medicine?

The effects of methylthioninium have been evaluated in experimental models.

At the time of submission of the application for orphan designation, no clinical trials with methylthioninium in patients with progressive non-fluent aphasia had been started.

At the time of submission, methylthioninium was used or authorised in several countries for the treatment of other diseases including urinary-tract infection, drug-induced methaemoglobinaemia, ifosfamide encephalopathy, and refractory shock syndromes.

At the time of submission, methylthioninium was not authorised anywhere in the EU for progressive non-fluent aphasia 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 9 September 2010 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 European Union) or insufficient returns on investment.

*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. At the time of designation, this represented a population of 506,300,000 (Eurostat 2010).

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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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 languages¹, Norwegian and Icelandic

Language	Active ingredient	Indication
English	Methylthioninium	Treatment of progressive non-fluent aphasia
Bulgarian	Метилтионин	Лечение на прогресивна неплавна афазия
Czech	Methylthioninium	Léčba progresivní non-fluentní afasie
Danish	Methylthioninium	Behandling af progressiv ikke-flydende afasi
Dutch	Methylthioninium	Behandeling van progressieve niet-vloeiende afasie
Estonian	Metüültioniinium	Progresseeruva <i>non-fluent</i> afaasia ravi
Finnish	Metüylitioniini	Etenevän, non-fluent-tyypin afasian hoito
French	Méthylthioninium	Traitement de l'aphasie progressive non fluente
German	Methylthioninium	Behandlung der primär progressiven, nicht-flüssigen Aphasie
Greek	Μεθυλοθειονίνιο	Θεραπεία της προοδευτικής αφασίας με διαταραχές λόγου
Hungarian	Metiltionin	Progresszív nonfluens afázia kezelése
Italian	Blu di metilene	Trattamento dell'afasia non fluente progressiva
Latvian	Metiltionīns	Progresējošas nemainīgas afāzijas ārstēšana
Lithuanian	Metiltioninis	Progresuojančios nesklaidžios afazijos gydymas
Maltese	Methylthioninium	Kura tal-afasja bla heffa progressiva
Polish	Metylotionina	Leczenie postępującej afazji z mową niepełną
Portuguese	Metiltionina	Tratamento da afasia não fluente progressiva
Romanian	Metiltioniniu	Tratamentul afaziei progressive non fluente
Slovak	Metyltionín	Liečba progresívnej nonfluentnej afázie
Slovenian	Metiltioninij	Zdravljenje progresivne nefluentne afazije
Spanish	Metiltionina	Tratamiento de la afasia progresiva primaria
Swedish	Metyltionin	Behandling av progressiv icke-flytande afasi
Norwegian	Metyltionin	Behandling av progressiv ikke-flytende afasi
Icelandic	Metýltíónín	Meðferð ágengs óliðugs málstols

¹ At the time of designation