



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

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Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Masitinib mesilate for treatment of amyotrophic lateral sclerosis

On 29 August 2016, orphan designation (EU/3/16/1722) was granted by the European Commission to AB Science, France, for masitinib mesilate for treatment of amyotrophic lateral sclerosis.

What is amyotrophic lateral sclerosis?

Amyotrophic lateral sclerosis (ALS) is a progressive disease of the nervous system, where nerve cells in the brain and spinal cord that control voluntary movement gradually deteriorate, causing loss of muscle function and paralysis. The exact causes are unknown but are believed to include genetic and environmental factors. The symptoms of ALS depend on which muscles weaken first, and include loss of balance, loss of control of hand and arm movement, and difficulty speaking, swallowing and breathing. ALS usually starts in mid-life and men are more likely to develop the disease than women.

ALS is a long-term debilitating and life-threatening disease because of the gradual loss of function and its paralysing effect on muscles used for breathing which usually leads to death from respiratory failure.

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

At the time of designation, ALS affected less than 1 in 10,000 people in the European Union (EU). This was equivalent to a total of around 51,000 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, riluzole was authorised in the EU to treat ALS. Patients also received supportive treatment to relieve the symptoms of the disease, such as physiotherapy and speech therapy.

*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 28), Norway, Iceland and Liechtenstein. This represents a population of 513,700,000 (Eurostat 2016).



The sponsor has provided sufficient information to show that this medicine, used together with riluzole, might be of significant benefit for patients with ALS, with early results from studies showing a positive effect on the ALS function scale (which rates patients' symptoms). 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?

Masitinib mesylate is expected to work by reducing the activity of microglia, the main immune (defence) cells of the brain, and mast cells, a type of white blood cell. Microglia and mast cells are believed to play a role in the inflammation and damage to nerves in patients with ALS. By reducing their activity, the medicine is expected to reduce inflammation and damage to nerves, thereby slowing down the worsening of the patient's symptoms.

What is the stage of development of this medicine?

The effects of masitinib mesylate 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 ALS were ongoing.

At the time of submission, masitinib mesylate was not authorised anywhere in the EU for ALS. Orphan designation had been granted in the United States for ALS.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 13 July 2016 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, on the medicine's [rare disease designations page](#).

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 | Masitinib mesilate | Treatment of amyotrophic lateral sclerosis |
| Bulgarian | Маситиниб месилат | Лечение на амиотрофична латерална склероза |
| Croatian | Mazitinib mezilat | Liječenje amiotrofične lateralne skleroze |
| Czech | Masitinibini mesylat | Léčba amyotrofické laterální sklerózy (ALS) |
| Danish | Masitinibmesylat | Behandling af amyotrofisk lateralsklerose |
| Dutch | Masitinib mesilaat | Behandeling van amyotrofe lateraalsclerose |
| Estonian | Masitiniibmesülaat | Amüotroofilise lateraalskleroosi ravi |
| Finnish | Masitinibimesylaatti | Amyotrofisen lateraalskleroosin hoito |
| French | Masitinib mésylate | Traitement de la sclérose latérale amyotrophique |
| German | Masitinibmesilat | Behandlung der amyotrophen Lateralsklerose |
| Greek | Masitinib μεσυλική | Θεραπεία πλάγιας μυοατροφικής σκλήρυνσης |
| Hungarian | Masztinib-mezilát | Amyotrophiás lateral sclerosis kezelése |
| Italian | Masitinib mesilato | Trattamento della sclerosi laterale amiotrofica |
| Latvian | Masitinība mezilāts | Amiotrofiskās laterālās sklerozes ārstēšana |
| Lithuanian | Mazitinibo mesilatas | Šoninės amiotrofinės sklerozės gydymas |
| Maltese | Masitinib mesilate | Kura tas-sklerosi laterali amjotrofika |
| Polish | Mesylnan masytynibu | Leczenie stwardnienia bocznego zanikowego |
| Portuguese | Mesilato de masitinib | Tratamento da esclerose lateral amiotrófica |
| Romanian | Mesilat de masitinib | Tratamentul sclerozei laterale amiotrofice |
| Slovak | Masitinib-mezylátu | Liečba amyotrofickéj laterálnej sklerózy |
| Slovenian | Masitinibov mesilat | Zdravljenje amiotrofične lateralne skleroze |
| Spanish | Mesilato de masitinib | Tratamiento de la esclerosis lateral amiotrófica |
| Swedish | Masitinibmesylat | Behandling av amyotrofisk lateralskleros |
| Norwegian | Masitinibmesilat | Behandling av amyotrofisk lateralsklerose |
| Icelandic | Masitíníbmesyílat | Meðferð við blandaðri hreyfitaugahrönnun |

¹ At the time of designation