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Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Plitidepsin for the treatment of post-polycythaemia vera myelofibrosis

Please note that this product was withdrawn from the Community Register of designated orphan medicinal products in June 2011 on request of the sponsor.

On 23 February 2011, orphan designation (EU/3/10/839) was granted by the European Commission to Pharma Mar S.A. Sociedad Unipersonal, Spain, for plitidepsin for the treatment of post-polycythaemia vera myelofibrosis.

What is post-polycythaemia vera myelofibrosis?

Myelofibrosis is a disease in which the bone marrow (the spongy tissue inside the large bones) becomes dense and fibrous, and starts producing abnormal immature blood cells that replace the normal blood cells. It can develop as a reaction to polycythaemia vera (overproduction of red blood cells).

In myelofibrosis, some immature blood cells migrate from the bone marrow to other organs, such as the spleen and liver, where they mature. This causes the organs to become enlarged. Patients with the disease can develop several symptoms, including pain in the bones, fever, tiredness, weakness, weight loss, infections and bleeding.

Post-polycythaemia vera myelofibrosis is a debilitating disease that is long lasting and may be life threatening because it can lead to severe anaemia (low red blood cell counts) and infections, and can result in leukaemia (cancer of the white blood cells).

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

At the time of designation, post-polycythaemia vera myelofibrosis affected less than 0.03 in 10,000 people in the European Union (EU)[*]. This is equivalent to a total of fewer than 1,500 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).

[*]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 506,500,000 (Eurostat 2010).

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What treatments are available?

At the time of designation, although hydroxyurea and busulfan were authorised in the EU for primary myelofibrosis (myelofibrosis of unknown cause), there were no treatments authorised specifically for post-polycythaemia vera myelofibrosis.

Treatments for this disease were aimed at relieving symptoms. They included androgens (male hormones), glucocorticoids (a type of steroid) and erythropoietin (a hormone that stimulates the production of red blood cells) to treat anaemia, and surgery or radiation to remove or shrink the enlarged spleen. In some patients, allogeneic stem-cell transplantation was used. This is a complex procedure where the patient receives stem cells from a matched donor to help restore the bone marrow.

How is this medicine expected to work?

Plitidepsin is a cytotoxic (cell-killing) substance. In myelofibrosis, it is expected to work mainly by stimulating the production of an enzyme known as p27, whose main activity is to slow down or stop cell division. Around 50% of myelofibrosis patients have reduced amounts of this enzyme. By stimulating the production of p27, plitidepsin is expected to slow down the reproduction and abnormal growth of blood cells in the bone marrow of patients with myelofibrosis, thus slowing down the symptoms of the disease.

What is the stage of development of this medicine?

The effects of plitidepsin have been evaluated in experimental models.

At the time of submission of the application for orphan designation, clinical trials with plitidepsin in patients with myelofibrosis were ongoing.

At the time of submission, plitidepsin was not authorised anywhere in the EU for post-polycythaemia vera myelofibrosis 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 10 November 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 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:

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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	Plitidepsin	Treatment of post-polycythaemia vera myelofibrosis
Bulgarian	Плитидепсин	Лечение на миелофиброза след полицитемия вера
Czech	Plitidepsin	Léčba post-polycytemické myelofibrózy
Danish	Plitidepsin	Behandling af post polycythæmia vera myelofibrose
Dutch	Plitidepsine	Behandeling van myelofibrosis volgend op polycythaemia vera
Estonian	Plitidepsiin	Post- polycythemia vera müelofibroosi ravi
Finnish	Plitidepsiini	Polysytemia veran jälkeisen myelofibroosin hoito
French	Plitidepsine	Traitement de la myélofibrose consécutive à une polyglobulie de Vaquez
German	Plitidepsin	Behandlung einer Myelofibrose nach Polycythämia vera
Greek	Πλιτιδεψίνη	Θεραπεία της μυελοϊνωσης από αληθή πολυκυτταραιμία
Hungarian	Plitidepszin	Polycythaemia vera-t követő mielofibrózis kezelésére
Italian	Plitidepsina	Terapia della mielofibrosi post-policitemia vera
Latvian	Plitidepsīns	Pēc-polycythemia vera mielofibrozes ārstēšana
Lithuanian	Plitidepsinas	Mielofibrozės gydymas po tikrosios policitemijos
Maltese	Plitidepsin	Kura tal-mjelofibrożi konsegwenti għal poliċitemija vera
Polish	Plitydepsyna	Leczenie mielofibrozy wywołanej czerwienicą prawdziwą
Portuguese	Plitidepsina	Tratamento da mielofibrose devida a policitemia vera
Romanian	Plitidepsină	Tratamentul mielofibrozei post-policitemie vera
Slovak	Plitidepsín	Liečba myelofibrózy po pravej polycytémii
Slovenian	Plitidepsin	Zdravljenje mielofibroze, nastale po pravi policitemiji
Spanish	Plitidepsina	Tratamiento de la mielofibrosis secundaria a policitemia vera
Swedish	Plitidepsin	Behandling av post-polycytemia vera myelofibros
Norwegian	Plitidepsin	Behandling av myelofibrose sekundært til polycytemia vera
Icelandic	Plítidepsín	Til meðferðar á mýelófíbrósu í kjölfar polycythemia vera

[1] At the time of designation