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Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Selinexor for the treatment of plasma cell myeloma

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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 19 November 2014, orphan designation (EU/3/14/1355) was granted by the European Commission to Clinipace GmbH, Germany, for selinexor for the treatment of plasma cell myeloma.

What is plasma cell myeloma?

Plasma cell myeloma (also called multiple myeloma) is a cancer of a type of white blood cell called plasma cells. Plasma cells originate from the bone marrow, the spongy tissue inside the large bones in the body. In plasma cell myeloma the division of plasma cells becomes out of control, resulting in abnormal, immature plasma cells multiplying and filling up the bone marrow. This interferes with the production of normal white blood cells, red blood cells and platelets (components that help the blood to clot), leading to complications such as anaemia (low red blood cell counts), bone pain and fractures, raised blood calcium levels and kidney disease.

Plasma cell myeloma is a debilitating and life-threatening disease particularly because it disrupts the normal functioning of the bone marrow, damages the bones and causes kidney failure.

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

At the time of designation plasma cell myeloma affected approximately 1.8 in 10,000 people in the European Union (EU). This was equivalent to a total of around 92,000 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).

*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 511,100,000 (Eurostat 2014).



What treatments are available?

At the time of designation, several medicines were already authorised for plasma cell myeloma in the EU. The main treatment for plasma cell myeloma was chemotherapy (medicines to treat cancer) usually combined with corticosteroids to reduce the activity of the immune system, the body's natural defences. Where chemotherapy did not work, some patients received an allogeneic stem-cell transplant (a complex procedure where the patient receives stem cells from a matched donor to help restore the bone marrow). Radiotherapy (using radiation to kill cancer cells) was used to treat pain due to bone damage and prevent further damage. Interferon alfa was sometimes used in combination with chemotherapy.

The sponsor has provided sufficient information to show that selinexor might be of significant benefit for patients with plasma cell myeloma because early studies results suggest that it can produce improvements in patients who have undergone extensive treatment and whose disease has come back or who cannot tolerate standard treatment. 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?

This medicine is expected to work in patients with plasma cell myeloma by blocking the action of a protein called exportin 1 (XPO1). XPO1 is found at high levels in many cancer cells, where it prevents the actions of proteins that help stop cancer growth. By blocking XPO1, the medicine is expected to enhance the action of these anti-cancer proteins and bring about the death of the cancer cells, thereby slowing the progression of the disease.

What is the stage of development of this medicine?

The effects of the medicine 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 plasma cell myeloma were ongoing.

At the time of submission, the medicine was not authorised anywhere in the EU for plasma cell myeloma 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 October 2014 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 languages¹, Norwegian and Icelandic

Language	Active ingredient	Indication
English	Selinexor	Treatment of plasma cell myeloma
Bulgarian	Селинексор	Лечение на плазмоцитен миелом
Croatian	Selineksor	Liječenje multiplog mijeloma
Czech	Selinexor	Léčba myelomu
Danish	Selinexor	Behandling af plasmacellemyelom
Dutch	Selinexor	Behandeling van plasmacel myeloom
Estonian	Selinexor	Plasmarakulise müeloomi ravi
Finnish	Selinexor	Plasmasolumyelooman hoito
French	Sélinexor	Traitement du myélome des cellules plasmatiques
German	Selinexor	Behandlung des Plasmazell Myeloms
Greek	Σελινεξόρη	Θεραπεία του πλασματοκυτταρικού μυελώματος
Hungarian	Szelinexor	Plasma sejtes myeloma kezelése
Italian	Selinexor	Tattamento del Mieloma Plasmacellulare
Latvian	Selinexor	Plazmas šūnu mielomas ārstēšana
Lithuanian	Selineksoras	Plazminių ląstelių mielomos gydymas
Maltese	Selinexor	Kura tal-mjeloma taċ-ċelluli tal-plasma
Polish	Selineksor	Leczenie szpiczaka mnogiego
Portuguese	Selinexor	Tratamento do mieloma de células plasmáticas
Romanian	Selinexor	Tratamentul mielomului plasmocitar
Slovak	Selinexor	Liečba myelómu z plazmatických buniek
Slovenian	Selineksor	Zdravljenje plazmocitoma
Spanish	Selinexor	Tratamiento del mieloma de células plasmáticas
Swedish	Selinexor	Behandling av plasmacellsmyelom
Norwegian	Selineksor	Behandling av plasmacellemyelom
Icelandic	Selinexor	Meðferð á plasmafrumumýelómi

¹ At the time of designation