13 March 2015
EMA/COMP/360650/2014 Rev.1
Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Marizomib for the treatment of plasma cell myeloma

First publication	27 August 2014
Rev.1: administrative update	13 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 29 July 2014, orphan designation (EU/3/14/1295) was granted by the European Commission to Richardson Associates Regulatory Affairs Ltd, United Kingdom, for marizomib 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 3.6 in 10,000 people in the European Union (EU). This was equivalent to a total of around 185,000 people*, and is below the

*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.
At the time of designation, this represented a population of 512,900,000 (Eurostat 2014).

30 Churchill Place ● Canary Wharf ● London E14 5EU ● United Kingdom
Telephone +44 (0)20 3660 6000 **Facsimile** +44 (0)20 3660 5555
Send a question via our website www.ema.europa.eu/contact

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, 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 steroids 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 marizomib might be of significant benefit for patients with plasma cell myeloma because preliminary study results suggested that it could produce improvements in patients whose disease had come back or got worse after 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?

Marizomib blocks several actions of the proteasome, which is a system within the cells that breaks down proteins when they are no longer needed. It is thought that cancer cells, such as the abnormal plasma cells in myeloma, have an increased need to produce and break down proteins due to the fact that they are multiplying rapidly. In plasma myeloma cells, marizomib is expected to stop proteins from being broken down properly, leading eventually to the death of the cancer cells and so slowing down the growth of the cancer.

What is the stage of development of this medicine?

The effects of marizomib have been evaluated in experimental models.

At the time of submission of the application for orphan designation, clinical trials with marizomib in patients with plasma cell myeloma were ongoing.

At the time of submission, marizomib was not authorised anywhere in the EU for plasma cell myeloma. Orphan designation of marizomib had been granted in the United States for treatment of multiple myeloma (plasma cell myeloma).

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 12 June 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:

Richardson Associates Regulatory Affairs Ltd
Tripps Farmhouse Lower End
Great Milton
Oxfordshire OX44 7NJ
United Kingdom
Tel. +44 184 4279 821
E-mail: mark.richardson@richardsonassociatesra.com

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

[1] At the time of designation