

20 February 2013
EMA/381200/2010 Rev.1
Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Vorinostat for the treatment of malignant mesothelioma

Please note that this product was withdrawn from the Community Register of designated Orphan Medicinal Products in February 2013 on request of the Sponsor.

On 20 September 2010, orphan designation (EU/3/10/785) was granted by the European Commission to Merck Sharp & Dohme Limited, United Kingdom, for vorinostat for the treatment of malignant mesothelioma.

What is malignant mesothelioma?

Malignant mesothelioma is a cancer that is usually caused by exposure to asbestos. It affects the lining of organs, mainly the pleura (the lining of the lungs) and the peritoneum (the lining of the abdominal cavity). Mesothelioma of the pleura causes difficulty breathing and chest pain, and mesothelioma of the peritoneum causes ascites (a build-up of fluid in the abdomen) and abdominal pain. Because the symptoms are not specific, the cancer is often detected at a late stage.

Malignant mesothelioma is a life-threatening disease because patients have very poor survival, only living for a year, on average, after diagnosis.

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

At the time of designation, malignant mesothelioma affected approximately 0.6 in 10,000 people in the European Union (EU). This was equivalent to a total of around 30,000 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?

At the time of designation, the main treatment for malignant mesothelioma was surgery followed by chemotherapy (medicines to treat cancer) or radiotherapy (treatment with radiation). If the disease

*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).

was too advanced for surgery, chemotherapy was used on its own. One medicine, pemetrexed, was authorised in the EU for the treatment of malignant pleural mesothelioma.

The sponsor has provided sufficient information to show that vorinostat might be of significant benefit for patients with malignant mesothelioma because it works in a different way to existing treatments and because it might be able to be used in patients who have already been treated with other anticancer medicines or in combination with other anticancer medicines. These assumptions 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?

Vorinostat blocks the activity of proteins called histone deacetylases, which are involved in turning genes 'on' and 'off' within cells. The exact way that vorinostat works in malignant mesothelioma is not known, but it is expected to act on genes, enzymes and growth factors, leading to a reduction in the growth and division of the cancer cells.

What is the stage of development of this medicine?

The effects of vorinostat have been evaluated in experimental models.

At the time of submission of the application for orphan designation, clinical trials with vorinostat in patients with malignant mesothelioma were ongoing.

At the time of submission, vorinostat was not authorised anywhere in the EU for malignant mesothelioma. Orphan designation had been granted in the United States of America to vorinostat for mesothelioma.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 2 June 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.

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	Vorinostat	Treatment of malignant mesothelioma
Bulgarian	Вориностат	Лечение на малигнен мезотелиом
Czech	Vorinostat	Léčba maligního mezoteliomu
Danish	Vorinostat	Behandling af malignt mesotheliom
Dutch	Vorinostat	Behandeling van maligne mesotheliom
Estonian	Vorinostat	Pahaloomulise mesoteliomi ravi
Finnish	Vorinostaatti	Malignin mesotelioman hoito
French	Vorinostat	Traitement du mésothéliome malin
German	Vorinostat	Behandlung des malignen Mesothelioms
Greek	Βορινοστάτ	Θεραπεία κακοήθους μεσοθηλιώματος
Hungarian	Vorinostat	Rosszindulatú mesothelioma kezelése
Italian	Vorinostat	Trattamento del mesotelioma maligno
Latvian	Vorinostat	Ļaundabīgas mezoteliomas ārstēšana
Lithuanian	Vorinostatas	Piktybinės mezoteliomos gydymas
Maltese	Vorinostat	Kura tal-mesoteljoma malinna
Polish	Worinostat	Leczenie złośliwego międzybłoniaka
Portuguese	Vorinostato	Tratamento do Mesotelioma maligno
Romanian	Vorinostat	Tratamentul mezoteliomului malign
Slovak	Vorinostat	Liečba malígneho mezoteliómu
Slovenian	Vorinostat	Zdravljenje malignega mezotelioma
Spanish	Vorinostat	Tratamiento del mesotelioma maligno
Swedish	Vorinostat	Behandling av malignt mesoteliom
Norwegian	Vorinostat	Behandling av malignt mesoteliom
Icelandic	Vorínóstat	Meðferð við illkynja miðþekjuæxli

¹ At the time of designation