



EUROPEAN MEDICINES AGENCY  
SCIENCE MEDICINES HEALTH

27 March 2017  
EMA/72440/2017

## Public summary of opinion on orphan designation

### Vemurafenib for the treatment of Erdheim-Chester disease

On 27 February 2017, orphan designation (EU/3/17/1846) was granted by the European Commission to Groupe d'étude des histiocytoses, France, for vemurafenib for the treatment of Erdheim-Chester disease.

#### What is Erdheim-Chester disease?

Erdheim-Chester disease is a condition in which cells of the immune (defence) system known as histiocytes build up in various tissues in the body including bones, eyes, kidneys, skin, brain, lungs and heart. This can lead to serious damage to organs, bone pain, bulging eyes, nerve damage affecting eye control, reduced mental function and diabetes insipidus (a condition where the body cannot regulate water and urine properly). Most patients are diagnosed with Erdheim-Chester disease after the age of 40 years. The severity of the symptoms varies from patient to patient.

Erdheim-Chester disease is a debilitating and life-threatening condition because it can lead to serious complications.

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

At the time of designation, Erdheim-Chester disease affected approximately 0.3 in 10,000 people in the European Union (EU). This was equivalent to a total of around 15,000 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, no satisfactory methods were authorised in the EU for the treatment of Erdheim-Chester disease. Patients were treated with cytotoxic agents (medicines that kill cells), interferon alfa (which works on the immune system), corticosteroids and autologous haematopoietic stem cell transplantation (in which the bone marrow is cleared of cells and replaced with the patient's own stem cells).

---

\*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 515,700,000 (Eurostat 2017).



## How is this medicine expected to work?

A proportion of cases of Erdheim-Chester disease are thought to result from a mutation (change) in the *BRAF* gene, called the *BRAF V600E* mutation. This mutation leads to the production of an abnormal BRAF protein which causes histiocytes to build up in tissues and leads to the symptoms. Vemurafenib works by blocking the abnormal BRAF protein, and by doing this it is expected to slow down the build-up of histiocytes and so help to control the complications of Erdheim-Chester disease.

## What is the stage of development of this medicine?

The effects of vemurafenib have been evaluated in experimental models.

At the time of submission of the application for orphan designation, clinical trials with vemurafenib in patients with Erdheim-Chester disease were ongoing.

At the time of submission, vemurafenib (as Zelboraf tablets) was authorised in the EU for certain types of melanoma (a skin cancer) associated with the *BRAF V600* mutation.

At the time of submission, vemurafenib was not authorised anywhere in the EU for Erdheim-Chester disease. Orphan designation of the medicine had been granted in the United States for Erdheim-Chester disease.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 19 January 2017 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 languages<sup>1</sup>, Norwegian and Icelandic

Language	Active ingredient	Indication
English	Vemurafenib	Treatment of Erdheim-Chester disease
Bulgarian	Вемурафениб	Лечение на болестта на Erdheim-Chester
Croatian	Vemurafenib	Liječenje Erdheim-Chesterove bolesti
Czech	Vemurafenib	Léčba Erdheim-Chester nemoci
Danish	Vemurafenib	Behandling af Erdheim-Chester sygdom
Dutch	Vemurafenib	Behandeling van de ziekte Erdheim-Chester
Estonian	Vemurafeniib	Erdheim-Chesteri haiguse ravi
Finnish	Vemurafenibi	Erdheim-Chesterin taudin hoito
French	Vémurafénib	Traitement de la maladie d'Erdheim-Chester
German	Vemurafenib	Behandlung der Erdheim-Chester Erkrankung
Greek	Βεμουραφενίμπη	Η θεραπεία της νόσου Erdheim-Chester
Hungarian	Vemurafenib	Erdheim-Chester-betegség kezelése
Italian	Vemurafenib	Trattamento della malattia di Erdheim-Chester
Latvian	Vemurafenibs	Erdheima-Čestera (Erdheim-Chester) slimības ārstēšana
Lithuanian	Vemurafenibas	Erdheim-Chester ligos gydymas
Maltese	Vemurafenib	Kura tal-marda Erdheim-Chester
Polish	Wemurafenib	Leczenie choroby Erdheim-Chester'a
Portuguese	Vemurafenib	Tratamento da doença de Erdheim-Chester
Romanian	Vemurafenib	Tratamentul bolii Erdheim-Chester
Slovak	Vemurafenib	Liečba Erdheim-Chester choroby
Slovenian	Vemurafenib	Zdravljenje Erdheim-Chesterjeve bolezni
Spanish	Vemurafenib	El tratamiento de la enfermedad de Erdheim-Chester
Swedish	Vemurafenib	Behandling av Erdheim-Chesters sjukdom
Norwegian	Vemurafenib	Behandling av Erdheim-Chesters sykdom
Icelandic	Vemúrafeníb	Meðferð á Erdheim-Chester sjúkdómi

<sup>1</sup> At the time of designation