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EMA/COMP/791083/2015
Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Combretastatin A1 diphosphate for the treatment of acute myeloid leukaemia

On 14 December 2015, orphan designation (EU/3/15/1587) was granted by the European Commission to Diamond BioPharm Limited, United Kingdom, for combretastatin A1 diphosphate for the treatment of acute myeloid leukaemia.

What is acute myeloid leukaemia?

Acute myeloid leukaemia (AML) is a cancer of the white blood cells (cells that fight against infections). In patients with AML, the bone marrow (the spongy tissue inside the large bones, where blood cells are produced) produces large numbers of abnormal, immature white blood cells. These abnormal cells quickly build up in large numbers in the bone marrow and are found in the blood.

AML is a long-term debilitating and life-threatening disease because these abnormal immature cells take the place of the normal blood cells, causing bleeding episodes, blood clots and reducing the patient's ability to fight infections.

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

At the time of designation, AML affected less than 1.8 in 10,000 people in the European Union (EU). This was equivalent to a total of fewer than 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).

What treatments are available?

Treatment for AML is complex and depends on a number of factors including the extent of the disease, whether it has been treated before, and the patient's age, symptoms and general state of health. At the time of designation, the main treatments for AML were chemotherapy (medicines to treat cancer) and haematopoietic (blood) stem-cell transplantation (a complex procedure where the patient receives stem cells from a matched donor to help restore the bone marrow).

*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 512,900,000 (Eurostat 2015).

The sponsor has provided sufficient information to show that combretastatin A1 diphosphate might be of significant benefit for patients with AML because early results suggest it can be used with existing treatments and may produce responses in patients whose disease has come back after earlier therapy. 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?

Combretastatin A1 diphosphate is thought to act in more than one way. It acts to disrupt the internal structure of cells (known as the cytoskeleton) that is needed for them to grow and multiply properly. It is also converted into highly reactive substances inside the cell that attack and kill the leukaemia cells directly. This is expected to result in death of the leukaemia cells and control the spread of the disease.

What is the stage of development of this medicine?

The effects of combretastatin A1 diphosphate 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 AML were ongoing.

At the time of submission, combretastatin A1 diphosphate was not authorised anywhere in the EU for AML. Orphan designation of the medicine had been granted in the United States for acute myelogenous leukaemia.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 12 November 2015 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 languages¹, Norwegian and Icelandic

Language	Active ingredient	Indication
English	Combretastatin A1 diphosphate	Treatment of acute myeloid leukaemia
Bulgarian	Комбретастатин А1 дифосфат	Лечение на остра миелоидна левкемия
Croatian	Kombretastatin A1 difosfat	Liječenje akutne mijeloične leukemije
Czech	Kombretastatin A1 difosfát	Léčba akutní myeloidní leukémie
Danish	Combretastatin A1 diphosphat	Behandling af akut myeloid leukæmi
Dutch	Combretastatine A1 difosfaat	Behandeling van acute myeloïde leukemie
Estonian	Kombretastatiin A1 difosfaat	Akuutse müeloidse leukeemia ravi
Finnish	Kombretastatiini A1 difosfaatti	Akuutin myelooisen leukemian hoito
French	Combretastatine A1 diphosphate	Traitement de la leucémie aiguë myéloïde
German	Combretastatin A1 Diphosphat	Behandlung der akuten myeloischen Leukämie
Greek	Κομπρεταστατίνη Α1 διφωσφορική	Θεραπεία της οξείας μυελοειδούς λευχαιμίας
Hungarian	Kombretasztatin A1 difoszfát	Akut myeloid leukaemia kezelése
Italian	Combretastatina A1 difosfato	Trattamento della leucemia mieloide acuta
Latvian	Kombretastatīna A1 difosfāts	Akūtas mieloleikozes ārstēšana
Lithuanian	Kombretastatino A1 difosfatas	Ūmios mieloleukozės gydymas
Maltese	Combretastatin A1 diphosphate	Kura tal-lewkimja mjelojda akuta
Polish	Difosforan kombretastatyny A1	Leczenie ostrej białaczki szpikowej
Portuguese	Difosfato de combretastatina A1	Tratamento da leucémia mielóide aguda
Romanian	Combretastatin A1 difosfat	Tratamentul leucemiei mieloide acute
Slovak	Kombretastatín A1 difosfát	Liečba akútnej myeloickej leukémie
Slovenian	Kombretastatin A1 difosfat	Zdravljenje akutne mieloične levkemije
Spanish	Difosfato de combretastatina A1	Tratamiento de la leucemia mieloide aguda
Swedish	Kombretastatin A1 difosfat	Behandling av akut myeloisk leukemi
Norwegian	Combretastatin A1 difosfat	Behandling av akutt myelogen leukemi
Icelandic	Kombretastatín A1 dífosfat	Meðferð við bráðu kyrningahvítblæði

¹ At the time of designation