



EUROPEAN MEDICINES AGENCY
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Public summary of opinion on orphan designation

²²⁵Ac-lintuzumab for the treatment of acute myeloid leukaemia

On 22 May 2017, orphan designation (EU/3/17/1871) was granted by the European Commission to Voisin Consulting S.A.R.L, France, for ²²⁵Ac-lintuzumab 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 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 a reduced ability to fight infections.

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

At the time of designation, AML affected approximately 1 in 10,000 people in the European Union (EU). This was equivalent to a total of around 52,000 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 procedure where the patient's bone marrow is cleared of cells and replaced by stem cells to form new bone marrow that produces healthy blood 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).



The sponsor has provided sufficient information to show that the medicine might be of significant benefit for patients with AML because early studies show an improvement in those who could not receive the usual initial chemotherapy 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?

The medicine is made up of the monoclonal antibody lintuzumab linked to a radioactive element, actinium-225 (^{225}Ac). Lintuzumab attaches to CD33, a receptor (target) which is present at high levels on the surface of AML cancer cells. The linked ^{225}Ac releases short-lived radioactivity that can destroy nearby cells. By attaching to CD33 receptors, the medicine is expected to concentrate the radioactivity in the area of the AML cells and so kill them selectively, reducing the growth of the cancer.

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 AML were ongoing.

The medicine was not authorised anywhere in the EU for AML. Orphan designation of the medicine had been granted in the United States for acute myelogenous (myeloid) leukaemia.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 11 April 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 languages¹, Norwegian and Icelandic

Language	Active ingredient	Indication
English	²²⁵ Ac-lintuzumab	Treatment of acute myeloid leukaemia
Bulgarian	²²⁵ Ac-лннтузумаб	Лечение на остра миелоидна левкемия
Croatian	²²⁵ Ac-lintuzumab	Liječenje akutne mijeloične leukemije
Czech	²²⁵ Ac-lintuzumab	Léčba akutní myeloidní leukémie
Danish	²²⁵ Ac-lintuzumab	Behandling af akut myeloid leukæmi
Dutch	²²⁵ Ac-lintuzumab	Behandeling van acute myeloïde leukemie
Estonian	²²⁵ Ac-lintuzumaab	Akuutse müeloidse leukeemia ravi
Finnish	²²⁵ Ac-lintutsumabi	Akuutin myelooisen leukemian hoito
French	²²⁵ Ac-lintuzumab	Traitement de la leucémie aiguë myéloïde
German	²²⁵ Ac-lintuzumab	Behandlung der akuten myeloischen Leukämie
Greek	²²⁵ Ac-λιντουζουμάμπη	Θεραπεία της οξείας μυελοειδούς λευχαιμίας
Hungarian	²²⁵ Ac-lintuzumab	Akut myeloid leukaemia kezelése
Italian	²²⁵ Ac-lintuzumab	Trattamento della leucemia mieloide acuta
Latvian	²²⁵ Ac-lintuzumabs	Akūtas mieloleikozes ārstēšana
Lithuanian	²²⁵ Ac-lintuzumabas	Ūmios mieloleukozės gydymas
Maltese	²²⁵ Ac-lintuzumab	Kura tal-lewkimja mjelojda akuta
Polish	²²⁵ Ac-lintuzumab	Leczenie ostrej białaczki szpikowej
Portuguese	²²⁵ Ac-lintuzumab	Tratamento da leucémia mielóide aguda
Romanian	²²⁵ Ac-lintuzumab	Tratamentul leucemiei mieloide acute
Slovak	²²⁵ Ac-lintuzumab	Liečba akútnej myeloickej leukémie
Slovenian	²²⁵ Ac-lintuzumab	Zdravljenje akutne mieloične levkemije
Spanish	²²⁵ Ac-lintuzumab	Tratamiento de la leucemia mieloide aguda
Swedish	²²⁵ Ac-lintuzumab	Behandling av akut myeloisk leukemi
Norwegian	²²⁵ Ac-lintuzumab	Behandling av akutt myelogen leukemi
Icelandic	²²⁵ Ac-lintúzumab	Meðferð við bráðu kyrningahvítblæði

¹ At the time of designation