



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

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Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Recombinant antibody derivative against human CD19 and CD3 for the treatment of mantle cell lymphoma

First publication	4 January 2006
Rev.1: sponsor's name change	21 February 2013
Rev.2: transfer of sponsorship	25 April 2014
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 1 December 2003, orphan designation (EU/3/03/175) was granted by the European Commission to Micromet AG, Germany, for recombinant antibody derivative against human CD19 and CD3 for the treatment of mantle cell lymphoma.

In January 2012, Micromet AG changed name to Micromet GmbH. In May 2012, Micromet GmbH changed name to AMGEN Research (Munich) GmbH.

The sponsorship was transferred to Amgen Europe BV, The Netherlands, in February 2014.

What is mantle cell lymphoma?

Mantle cell lymphoma belongs to the group of non-Hodgkin's lymphoma. Lymphoma is a type of cancer that originates from the lymphatic system. The lymphatic system is part of the immune system: the body's natural defence against infection and disease. It is a complex system made up of organs such as bone marrow (the spongy tissue inside the large bones in the body), the thymus and the spleen, and a network of lymph nodes throughout the body that are connected by lymphatic vessels. Normally, the lymphatic cells grow in a controlled manner. However, in lymphoma a lymphatic cell clone continues to grow and divides in an uncontrolled manner, developing into a tumour. Lymphoma cells generally grow in lymph nodes. There are several different types of lymphoma depending on the type of lymphatic cancer cells. In mantle cell lymphoma, the cancer cells are related to the blood cells called B-lymphocytes. This disease affects mainly adult males of over 50 years. Mantle cell lymphoma is a serious and life-threatening condition.



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

At the time of designation, mantle cell lymphoma affected approximately 0.4 in 10,000 people in the European Union (EU). This was equivalent to a total of 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?

Treatment of mantle cell lymphoma includes chemotherapy (using drugs to kill cancer cells), radiotherapy (using high-dose x-rays or other high-energy rays to kill cancer cells) and immunotherapy (using drugs that stimulate the body's own immune system to kill the cancer cells). There are currently several medicinal products authorised in the Community for treatment of non-Hodgkin lymphomas. The choice of treatment depends in particular on the extension of the disease as well as on the responses to therapies previously prescribed.

Recombinant antibody derivative against human CD19 and CD3 could be of potential significant benefit for the treatment of mantle cell lymphoma. The potential benefit is mainly because it may act in a different way than other drugs. This assumption will have to be confirmed at the time of marketing authorisation. This will be necessary to maintain the orphan status.

How is this medicine expected to work?

Antibodies are proteins in the body that target and link specific shapes on the surface of foreign bodies, such as bacteria or cancer cells. Recombinant antibody derivative against human CD19 and CD3 is an antibody that is thought to bind to lymphoma cells (that display a protein called CD19 on the surface) as well as to cells of the immune system called T lymphocytes (that display CD3). By binding both these cells, it is thought that the antibody may help the body's immune system to recognise attack and kill the cancer cells.

What is the stage of development of this medicine?

The effects of recombinant antibody derivative against human CD19 and CD3 were evaluated in experimental models.

At the time of submission of the application for orphan designation, phase I clinical trials including patients with mantle cell lymphoma were ongoing.

Recombinant antibody derivative against human CD19 and CD3 was not marketed anywhere worldwide for mantle cell lymphoma or designated as orphan medicinal product elsewhere for this condition, at the time of submission.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 10 October 2003 recommending the granting of this designation.

*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.
At the time of designation, this represented a population of 382,800,000 (Eurostat 2003).

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:

Amgen Europe BV
Minervum 7061
4817 ZK Breda
The Netherlands
Tel.: 31 76 5 732000
Fax: 31 76 5 732001

http://www.amgen.nl/dutch/contact_us/amgen_contact.jsp

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	Recombinant antibody derivative against human CD19 and CD3	Treatment of mantle cell lymphoma
Bulgarian	Производно на рекомбинантно антитяло срещу човешки CD19 и CD3	Лечение на мантелно клетъчен лимфом
Croatian	Rekombinantni derivat protutijela protiv ljudskog CD19 i CD3	Liječenje limfoma plaštene zone
Czech	Derivát rekombinantní protilátky proti lidskému CD19 a CD3	Léčba lymfomu z plášťových buněk
Danish	Rekombinant antistof derivativ mod humant CD19 og CD3	Behandling af mantle celle lymfom
Dutch	Recombinant antilichaamderivaat tegen humaan CD19 en CD3	Behandeling van mantelcellymfoom
Estonian	Rekombinantne antikeha derivaat inimese CD19 ja CD3 vastu	Mantelrakklümfoomi ravi
Finnish	Rekombinantti vasta-aineen johdannainen ihmisen CD19:a ja CD3:a vastaan	Vaippasolulymfooman hoito
French	Anticorps recombinant dirigé contre les antigènes CD19 et CD3 humains	Traitement du Lymphome à cellules du manteau
German	Rekombinantes Antikörperderivat gegen die humanen Oberflächenantigene CD19 und CD3	Behandlung des Mantelzelllymphoms
Greek	Ανασυνδυασμένο παράγωγο αντισώματος έναντι των ανθρώπινων CD19 και CD3	Θεραπεία χιτώνοματικού κυτταρικού λεμφώματος
Hungarian	Humán CD19 és CD13 ellenes rekombináns antitest-derivátum	Köpenysejtes lymphoma-kezelése
Italian	Derivato di anticorpi ricombinante contro CD19 e CD3 umani	Tattamento del linfoma mantellare
Latvian	Rekombinantas antivielas atvasinājums pret cilvēka CD19 un CD3	Mazo šķeltšūnu limfomas ārstēšana
Lithuanian	Rekombinantinis antikūno derivatas prieš žmogaus CD19 ir CD3	Mantijos ląstelių limfomos gydymas
Maltese	Derivattiv ta' antikorp rikombinanti kontra CD19 u CD3 uman	Kura tal-linfoma taċ-ċelloli tal-mantell
Polish	Pochodna rekombinowanego przeciwciała przeciw ludzkim antygenom CD19 i CD3	Leczenie chłoniaka z komórek płaszczu
Portuguese	Anticorpo recombinante contra os antígenios humanos CD19 e CD3	Tratamento do linfoma das células do manto
Romanian	Derivat de anticorpi recombinanți anti antigene umane CD19 și CD3	Tratamentul limfomului cu celulă de manta
Slovak	Derivát rekombinantnej protilátky proti ľudskému CD19 a CD3	Liečba lymfómu z plášťových buniek

¹ At the time of designation

Language	Active ingredient	Indication
Slovenian	Rekombinantni derivat protitelesa proti humanemu CD19 in CD3	Zdravljenje limfoma plaščnih celic
Spanish	Anticuerpo recombinante contra los antígenos humanos CD19 y CD3	Tratamiento del linfoma de células del manto
Swedish	Rekombinant antikroppsderivat riktat mot humant CD19 och CD3	Behandling av mantelcellslymfom