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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 treatment of chronic lymphocytic leukaemia

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/3/03/176) was granted by the European Commission to Micromet AG, Germany, for recombinant antibody derivative against human CD19 and CD3 for the treatment of chronic lymphocytic leukaemia.

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 chronic lymphocytic leukaemia?

Chronic lymphocytic leukaemia is a disease in which cancer cells are found in the blood and the bone marrow. The bone marrow is the spongy tissue inside the large bones in the body. Normally, the bone marrow makes cells called "blasts" that mature into several different types of blood cells that have specific functions in the body. These include red cells, white cells and platelets. Red blood cells carry oxygen and other materials to all tissues of the body. White blood cells fight infection. Platelets support blood clotting. When leukaemia develops, the bone marrow produces large numbers of abnormal blood cells. There are several types of leukaemias. Chronic lymphocytic leukaemia is a cancer of the white blood cells called lymphocytes. The lymphocytes multiply too quickly and live too long, so there are too many of them circulating in the blood. These leukaemic lymphocytes look normal, but they are not fully developed and do not work properly. Over a period of time these abnormal cells replace the normal white cells, red cells and platelets in the bone marrow. Chronic lymphocytic leukaemia is the

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most common type of leukaemia. It mainly affects older people and is rare in people under the age of 40. Chronic lymphocytic leukaemia is chronically debilitating and life-threatening due to the severe prognosis and the poor long-term survival for high-risk patients.

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

At the time of designation, chronic lymphocytic leukaemia affected approximately 4 in 10,000 people in the European Union (EU). This was equivalent to a total of around 153,000 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 leukaemia is complex and depends on a number of factors including the type of leukaemia, the extent of the disease and whether the leukaemia has been treated before. It also depends on the age, the symptoms, and the general health of the patient. Some people with chronic lymphocytic leukaemia do not have treatment if their illness is not causing any symptoms and is progressing only very slowly. Treatment is only started if and when the symptoms become troublesome. Current main treatment of chronic lymphocytic leukaemia is chemotherapy (using drugs to kill cancer cells). Several products were authorised for the condition in the Community at the time of submission of the application for orphan drug designation.

The sponsor has provided sufficient information to show that recombinant antibody derivative against human CD19 and CD3 might be of significant benefit for patients with chronic lymphocytic leukaemia because it may act in a different way than other available medicines.

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?

Antibodies are proteins in the body that target 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 both to leukaemia cells (that display a protein called CD19 on their surface) as well as to cells of the immune system called T lymphocytes (that display CD3). By binding these two types of cells at the same time, it is thought that this antibody may help the body's immune system to 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, no clinical trials in patients with chronic lymphocytic leukaemia were initiated.

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

*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).

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.

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:

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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 languages[1], Norwegian and Icelandic

Language	Active ingredient	Indication
English	Recombinant antibody derivative against human CD19 and CD3	Treatment of chronic lymphocytic leukaemia
Bulgarian	Производно на рекомбинантно антитяло срещу човешки CD19 и CD3	Лечение на хронична лимфоцитна левкемия
Croatian	Rekombinantni derivat protutijela protiv ljudskog CD19 i CD3	Liječenje kronične limfocitne leukemije
Czech	Derivát rekombinantní protilátky proti lidskému CD19 a CD3	Léčba chronické lymfocytární leukémie
Danish	Rekombinant antistof derivativ mod humant CD19 og CD3	Behandling af kronisk lymfocytær leukæmi
Dutch	Recombinant antilichaamderivaat tegen humaan CD19 en CD3	Behandeling van chronische lymphocytische leukemie
Estonian	Rekombinantne antikeha derivaat inimese CD19 ja CD3 vastu	Kroonilise lümfoidse leukeemia ravi
Finnish	Rekombinantti vasta-aineen johdannainen ihmisen CD19:a ja CD3:a vastaan	Kroonisen lymfosyyttisen leukemian hoito
French	Anticorps recombinant dirigé contre les antigènes CD19 et CD3 humains	Traitement de la leucémie lymphoide chronique
German	Rekombinantes Antikörperderivat gegen die humanen Oberflächenantigene CD19 und CD3	Behandlung der chronisch lymphatischen Leukämie
Greek	Ανασυνδυασμένο παράγωγο αντισώματος έναντι των ανθρώπινων CD19 και CD3	Θεραπεία της χρόνιας λεμφοκυτταρικής λευχαιμίας
Hungarian	Humán CD19 és CD13 ellenes rekombináns antitest-derivátum	Krónikus lymphoid leukaemia kezelése
Italian	Derivato di anticorpi ricombinante contro CD19 e CD3 umani	Tattamento della leucemia linfatica cronica
Latvian	Rekombinantas antivielas atvasinājums pret cilvēka CD19 un CD3	Hroniskas limfoleikozes ārstēšana
Lithuanian	Rekombinantinis antikūno derivatas prieš žmogaus CD19 ir CD3	Lėtinės limfocitinės leukemijos gydymas
Maltese	Derivattiv ta' antikorp rikombinanti kontra CD19 u CD3 uman	Kura tal-lewkimja limfoċitika kronika
Polish	Pochodna rekombinowanego przeciwciała przeciw ludzkim antygenom CD19 i CD3	Leczenie przewlekłej białaczki limfatycznej
Portuguese	Anticorpo recombinante contra os antigénios humanos CD19 e CD3	Tratamento da leucemia linfocítica crónica
Romanian	Derivat de anticorpi recombinanți anti antigene umane CD19 și CD3	Tratamentul leucemiei limfocitare cronice
Slovak	Derivát rekombinantnej protilátky proti ľudskému CD19 a CD3	Liečba chronickej lymfocytárnej leukémie

[1] At the time of transfer of sponsorship

Language	Active ingredient	Indication
Slovenian	Rekombinantni derivat protitelesa proti humanemu CD19 in CD3	Zdravljene kronične limfocitne levkemije
Spanish	Anticuerpo recombinante contra los antígenos humanos CD19 y CD3	Tratamiento de la leucemia linfocítica crónica
Swedish	Rekombinant antikroppsderivat riktat mot humant CD19 och CD3	Behandling av kronisk lymfatisk leukemi