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Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Monoclonal antibody against human CD30 covalently linked to the cytotoxin monomethylauristatin E for the for the treatment of anaplastic large cell lymphoma

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Rev.1: transfer of sponsorship	7 March 2011
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Rev.3: sponsor's change of address	24 April 2015
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 15 January 2009, orphan designation (EU/3/08/595) was granted by the European Commission to Seattle Genetics UK Limited, United Kingdom, for monoclonal antibody against human CD30 covalently linked to the cytotoxin monomethylauristatin E for the treatment of anaplastic large cell lymphoma.

The sponsorship was transferred to Takeda Global Research and Development Centre (Europe) Ltd, United Kingdom, in September 2010 and subsequently to Takeda Pharma A/S, Denmark, in October 2013.

What is anaplastic large cell lymphoma?

Anaplastic large-cell lymphoma (ALCL) is a cancer of white blood cells called T lymphocytes. The characteristic of ALCL is the presence of blood cells expressing a specific molecule called CD30 on their surface. ALCL cells can be found both in the lymph nodes (nodal), as well as outside the nodules (extranodal locations). The first sign of the condition is often a painless swelling in the neck, armpit or groin, caused by enlarged lymph nodes. Often, more than one group of nodes is affected. This lymphoma may also occur in skin, lungs, liver, bone marrow or bones. Some people experience loss of appetite and tiredness. Other symptoms, known as B symptoms, include night sweats, unexplained high temperatures, and weight loss. ALCL is a life-threatening disease.

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

At the time of designation, anaplastic large cell lymphoma affected approximately 0.2 in 10,000 people in the European Union (EU). This was equivalent to a total of around 10,000 people[*], and is below the threshold 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?

Anaplastic large-cell lymphoma is usually treated with intensive chemotherapy (using drugs to kill cancer cells). More than one chemotherapy drugs are often used for ALCL (combination chemotherapy). Radiotherapy (using high-dose x-rays or other high-energy rays to kill cancer cells) may be used alone at first stages of the disease, when the lymphoma cells are contained in one area of lymph nodes. However, radiotherapy is more commonly given after chemotherapy.

The monoclonal antibody against CD30 covalently linked to the cytotoxin monomethylauristatin E could be of significant benefit for the treatment of ALCL. The main reasons are that it may offer a new way of targeting and killing cancer cells and it might improve the long-term outcome of the patients. 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?

CD30 is a molecule that Hodgkin lymphoma cells have on their surface (surface marker). One part of the medicinal product is an antibody against CD30 (anti-CD30), therefore is able to recognise and bind to CD30. The antibody is linked to a small molecule called monomethyl auristatin E, which is cytotoxic (kills rapidly dividing cancer cells). The CD30 antibody part of the product acts as a carrier for the cytotoxic substance. The product is thought to bind specifically on CD30 receptor of the lymphoma cells. Once bound on the cell surface, it is taken up by the cells. Once inside the cancer cells, the cytotoxic molecule, monomethyl auristatin E, gets released and stops cell division. The cancer cells are then expected to undergo programmed cell death.

What is the stage of development of this medicine?

The effects of monoclonal antibody against human CD30 covalently linked to the cytotoxin monomethylauristatin E have been evaluated in experimental models.

At the time of submission of the application for orphan designation, no clinical trials in patients with anaplastic large cell lymphoma had been started.

At the time of submission, the monoclonal antibody against CD30 covalently linked to the cytotoxin monomethylauristatin E was not authorised anywhere in the world for anaplastic large cell lymphoma or designated as orphan medicinal product elsewhere for this condition.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 8 October 2008 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 (EU 27), Norway, Iceland and Liechtenstein.
At the time of designation, this represented a population of 504,800,000 (Eurostat 2009).

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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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	Monoclonal antibody against human CD30 covalently linked to the cytotoxin monomethylauristatin E	Treatment of anaplastic large cell lymphoma
Bulgarian	Моноклонално антитяло срещу човешки CD30 антиген, ковалентно свързано с цитотоксина монометилауристатин Е	Лечение на анапластичен едроклетъчен лимфом
Croatian	Monoklonsko protutijelo protiv ljudskog CD30 kovalentno vezanog na citotoksin monometilauristatin E	Liječenje anaplastičnog velikostaničnog limfoma velikih stanica
Czech	Monoklonální antiCD30 protilátka kovalentně vázaná na cytotoxin monomethylauristatin E	Léčba anaplastického velkobuněčného lymfom
Danish	Monoklonalt antistof mod humant CD30, kovalent bundet til cytotoksinet monomethylaurist[atin E]	Behandling af anaplastisk storcellet lymfom
Dutch	Monoklonaal antilichaam gericht tegen humaan CD30, covalent gebonden aan cytotoxine monomethylauristatine E	Behandeling van anaplastisch grootcel-lymfoom
Estonian	Tsütotoksiin monometüülauristatiin E-ga kovalentselt seotud inimese CD30 vastane monoklonaalne antikeha	Anaplastilise suurrakulise lümfoomi ravi
Finnish	Sytotoksiini monometyyliauristatiini E:hen kovalenttisesti kytketty ihmisen monoklonaalinen CD30-vasta-aine	Anaplastisen suurisolulymfooman hoito
French	Anticorps monoclonal anti-CD30 humain lié de façon covalente à la cytotoxine monométhylauristatine E	Traitement du lymphome anaplasique à grandes cellules
German	Gegen humanes CD30-Antigen gerichteter, kovalent an die zytotoxische Substanz Monomethylauristatin E gebundener monoklonaler Antikörper	Behandlung des anaplastischen großzelligen Lymphoms
Greek	Μονοκλωνικό αντίσωμα κατά του ανθρώπινου CD30 ομοιοπολικά συνδετού με την κυτταροτοξίνη μονομεθυλαυριστατίνη Ε	Θεραπεία του αναπλαστικού μεγαλοκυτταρικού λεμφώματος
Hungarian	A monometil-aurisztatin E citotoxinhoz kovalensen kötött, humán CD30 elleni monoklonális antitest	Anaplasztikus nagysejtes lymphoma kezelése
Italian	Anticorpo monoclonale anti-CD30 umano legato in modo covalente alla citotossina monometilauristatina E	Trattamento del linfoma anaplastico a grandi cellule
Latvian	Monoklonālās antivielas pret cilvēka CD30, kovalenti saistītas ar citotoksīnu monometilauristatīnu E	Anaplastiskas lielšūnu limfomas ārstēšana

[1] At the time of transfer of sponsorship

Language	Active Ingredient	Indication
Lithuanian	Monokloninis antikūnas prieš žmogaus CD30, kovalentiniu ryšiu sujungtas su monometilauristatino E citotoksinu	Anaplastinės didžiųjų ląstelių limfomos gydymas
Maltese	Antikorp monoklonali kontra CD30 uman marbut b'mod kovalenti maċ-ċitotossina monomethylauristatin E	Kura tal-limfoma anaplastika taċ-ċelluli kbar
Polish	Przeciwciało monoklonalne przeciwko ludzkiemu CD30, związane kowalencyjnie z cytotoksyczną monometyloauristatyną E	Leczenie chłoniaka anaplastycznego z dużych komórek
Portuguese	Anticorpo monoclonal anti-CD30 humano ligado de forma covalente à citotoxina monometilauristatina E	Tratamento do linfoma de grandes células anaplásticas
Romanian	Anticorp monoclonal împotriva CD30 uman, legat covalent la citotoxina monometil-auristatină E	Tratamentul limfomului anaplastic cu celule mari
Slovak	Monoklonálna protilátka proti ľudskému CD30, kovalentne naviazaná na cytotoxín monometylauristatín E	Liečba anaplastického veľkobunkového lymfómu
Slovenian	Monoklonsko protitelo proti humanemu CD30, kovalentno vezano na citotoksin monometilavristatin E	Zdravljenje anaplastičnega velikoceličnega limfoma
Spanish	Anticuerpo monoclonal anti-CD30 humano, unido covalentemente a la citotoxina monometilauristatina E	Tratamiento del linfoma anaplástico de células grandes
Swedish	Monoklonal antikropp mot humant CD30 kovalent bunden till cytotoxinet monometylauristatin E	Behandling av anaplastiskt storcellslymfom
Norwegian	Monoklonalt antistoff mot humant CD30 kovalent bundet til cytotoksinet monometylauristatin E	Behandling av storcellet anaplastisk lymfom
Icelandic	Einstofna mótefni gegn manna-CD30 tengda frumueitrinu mónómetýlauristatíni E með jafngildum (covalent) tengjum	Meðferð á villivaxtar-stóreitilfrumuæxli