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Committee for Orphan Medicinal Products

# Public summary of opinion on orphan designation

Brentuximab vedotin for the treatment of cutaneous T-cell lymphoma

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| Disclaimer<br>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 11 January 2012, orphan designation (EU/3/11/939) was granted by the European Commission to Takeda Global Research and Development Centre (Europe) Ltd, United Kingdom, for brentuximab vedotin for the treatment of cutaneous T-cell lymphoma.

The sponsorship was transferred to Takeda Pharma A/S, Denmark, in October 2013.

## What is cutaneous T-cell lymphoma?

Cutaneous T-cell lymphoma (CTCL) is a cancer of the lymphatic system, a network of vessels that transport fluid from tissues through the lymph nodes and into the bloodstream. In CTCL there is uncontrolled growth of the T lymphocytes (T cells), a type of white blood cell found in the lymphatic system. The cancerous T cells appear in the skin, causing lesions (rashes, plaques and tumours) which can be itchy and painful.

CTCL usually happens in people aged between 40 and 60 years. In many cases, the disease is long-lasting, with survival for more than 10 to 20 years being common. However, it can be a serious and life-threatening disease because it can develop into more aggressive forms of cancer. The condition may have a large impact on quality of life, particularly because the skin lesions can cause disfigurement.

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

At the time of designation, CTCL affected less than 2.2 in 10,000 people in the European Union (EU). This was equivalent to a total of fewer than 112,000 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?

At the time of designation, several products were authorised for the treatment of CTCL within the EU. Treatments for CTCL can be divided into topical (applied to the skin) and systemic (affecting the whole body):

- topical treatments included corticosteroids, ultraviolet light and X-rays;
- systemic treatments include cytotoxic medicines (medicines that kill cells that are dividing, such as cancer cells), interferon alfa (a medicine that helps the immune system to fight against the cancer cells) and photopheresis. Photopheresis is a technique in which blood is temporarily removed from the body to be treated with ultraviolet light. A substance is first added to the blood, that, when exposed to ultraviolet light, becomes activated and able to damage the T cells. When these damaged cells are re-introduced in the patient’s blood, they trigger the immune system to attack and kill cancerous T cells in the body.

The sponsor has provided sufficient information to show that brentuximab vedotin might be of significant benefit for patients with CTCL because it works in a different way to existing treatments and early studies show that it may improve the treatment of patients with this condition. 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?

This medicine consists of three parts: an antibody (a type of protein), which can recognise and attach to a receptor that some types of CTCL cells have on their surface, called CD30; a linker; and a small molecule called monomethyl auristatin E, which is cytotoxic. The CD30 antibody part of the product acts as a carrier for the cytotoxic substance. When the medicine (the antibody attached by the linker to the cytotoxin) attaches to the CTCL cells, it is taken up by the cells. Once inside the cancer cells, the linker is cut and 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 brentuximab vedotin have been evaluated in experimental models.

At the time of submission of the application for orphan designation, clinical trials with brentuximab vedotin were ongoing.

Brentuximab vedotin is authorised in the United States of America for the treatment of patients with Hodgkin’s lymphoma and patients with systemic anaplastic large cell lymphoma.

At the time of submission, brentuximab vedotin was not authorised anywhere in the EU for CTCL or designated as an orphan medicinal product elsewhere for this condition.

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*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 509,000,000 (Eurostat 2012).

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 9 November 2011 recommending the granting of this designation.

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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:

Takeda Pharma A/S
Dybendal Alle 10
2630 Taastrup
Denmark
Tel.: +45 46 77 1036
Fax: +45 46 75 6640

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 | Brentuximab vedotin | Treatment of cutaneous T-cell lymphoma |
| Bulgarian | Брентуксимаб ведотин | Лечение на кожен Т-клетъчен лимфом |
| Croatian | Brentuksimab vedotin | Liječenje kožnog limfoma T-stanica |
| Czech | Brentuximab vedotin | Léčba kožního T-lymfomu |
| Danish | Brentuximab vedotin | Behandling af kutant T-celle-lymfom |
| Dutch | Brentuximab vedotin | Behandeling van cutaan T-cel-lymfoom |
| Estonian | Brentuximab vedotin | Kutaanse T-rakulise lümfoomi ravi |
| Finnish | Brentuksimabivedotiini | Ihon T-solulymfooman hoito |
| French | Brentuximab védotine | Traitement des lymphomes cutanés à cellules T |
| German | Brentuximab vedotin | Behandlung von kutanem T-Zell- Lymphom |
| Greek | Μπρρεντουξιμάμπη βεδοτίνη | Θεραπεία του δερματικού λεμφώματος Τα κυττάρων |
| Hungarian | Brentuximab vedotin | T-sejtes cutan lymphoma kezelése |
| Italian | Brentuximab vedotin | Trattamento del linfoma cutaneo a cellule T |
| Latvian | Brentuksimaba vedotīns | Ādas T-šūnu limfomas ārstēšana |
| Lithuanian | Brentuksimabas vedotinas | Odos T ląstelių limfomos gydymas |
| Maltese | Brentuximab vedotin | Kura tal-limfoma taċ-ċelluli tat-tip T tal-ġilda |
| Polish | Brentuksymab vedotin | Leczenie chłoniaka skórnego T-komórkowego |
| Portuguese | Brentuximab vedotin | Tratamento do linfoma cutâneo de células T |
| Romanian | Brentuximab vedotin | Tratamentul limfomului cutanat cu celule T |
| Slovak | Brentuximab vedotín | Liečba kutánneho T-bunkového lymfómu |
| Slovenian | Brentuksimab vedotin | Zdravljenje kožnega T-celičnega limfoma |
| Spanish | Brentuximab vedotina | Tratamiento del linfoma cutáneo de células T |
| Swedish | Brentuximab vedotin | Behandling av kutant T-cellslymfom |
| Norwegian | Brentuximab vedotin | Behandling av kutant T-celle-lymfom |
| Icelandic | Brentúxímab vedótín | Meðferð á T-frumu eitilæxli í húð |

[1] At the time of transfer of sponsorship