8 March 2017
EMA/4405/2017
Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Humanised IgG1 monoclonal antibody against the receptor-binding site of human placental growth factor for the treatment of medulloblastoma

On 12 January 2017, orphan designation (EU/3/16/1819) was granted by the European Commission to Oncurious NV, Belgium, for humanised IgG1 monoclonal antibody against the receptor-binding site of human placental growth factor (also known as TB-403) for the treatment of medulloblastoma.

What is medulloblastoma?

Medulloblastoma is a type of malignant brain tumour that mainly affects children between the ages of three and eight years. The tumour develops in the cerebellum (a region at the bottom of the brain), but may spread to other parts of the brain. The first symptoms of the disease are usually caused by the increased pressure within the skull, and include nausea (feeling sick) and vomiting, headache, ataxia (inability to co-ordinate muscle movements) and irritability.

Medulloblastoma is a debilitating and life-threatening disease because it severely damages the brain and is associated with poor long-term survival.

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

At the time of designation, medulloblastoma 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 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, the main treatment for medulloblastoma was surgery to remove the tumour. This was usually followed by radiotherapy (treatment with radiation) in children above three years of age, and chemotherapy (medicines to treat cancer), to reduce the risk of the tumour coming

*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 513,700,000 (Eurostat 2016).

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back. Two cancer medicines vincristine and carboplatin were specifically authorised for medulloblastoma in the EU.

The sponsor has provided sufficient information to show that the medicine might be of significant benefit for patients with medulloblastoma because laboratory studies indicate that it could improve survival in patients whose illness has not responded to existing treatments or has come back after 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?

In patients with medulloblastoma, the tumour cells produce high levels of a substance called placental growth factor (PlGF), which is normally only present during pregnancy. PlGF is thought to help the cancer cells survive and grow. This medicine contains a monoclonal antibody, a type of protein that has been designed to attach to receptors for PlGF, preventing PlGF from working. In turn this is expected to reduce the growth and spread of the tumour and improve the patient's survival.

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 this medicine in patients with medulloblastoma were ongoing.

At the time of submission, the medicine was not authorised anywhere in the EU for medulloblastoma or designated as an 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 December 2016 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:

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 languages[1], Norwegian and Icelandic

Language	Active ingredient	Indication
English	Humanised IgG1 monoclonal antibody against the receptor-binding site of human placental growth factor	Treatment of medulloblastoma
Bulgarian	Хуманизирано IgG1 моноклонално антитяло срещу рецептор-свързващия домейн на човешкия плацентарен растежен фактор	Лечение на медулобластом
Croatian	Humanizirano IgG1 monoklonsko protutijelo protiv mjesta vezanja receptora humanog faktora rasta placente	Liječenje meduloblastoma
Czech	Humanizovaná IgG1monoklonální protilátka k receptorovému vazebnému místu humánního placentárního růstového faktoru	Léčba medulloblastomu
Danish	Humaniseret, immunoglobulin G isotype 1 monoklonalt antistof, målrettet specifikt mod receptorbindingsstedet for human placental vækstfaktor	Behandling af medulloblastom
Dutch	Gehumaniseerd IgG1 monoklonaal antilichaam tegen de receptorbindingsplaats van menselijk placentale groeifactor	Behandeling van medulloblastoom
Estonian	Inimese platsentaarse kasvufaktori retseptorit siduva koha vastane inimese IgG1-tüüpi monoklonaalne antikeha	Medulloblastoomi ravi
Finnish	Humanisoitu IgG1 monoklonaalinen vasta-aine ihmisen plasentaalisen kasvutekijän reseptorin sitoumiskohtaa vastaan	Medulloblastooman hoito
French	Anticorps monoclonal humanisé IgG1 dirigé contre le site de liaison au récepteur du facteur de croissance placentaire humain	Traitement du médulloblastome
German	Humanisierter, IgG1 monoklonaler Antikörper, spezifisch gegen die Rezeptorbindungsstelle des humanen Plazenta-Wachstumsfaktors gerichtet	Behandlung des Medulloblastoms
Greek	Ανθρωποποιημένο, μονοκλωνικό IgG1 αντίσωμα έναντι της περιοχής πρόσδεσης του υποδοχέα ου ανθρώπινου πλακουντικού αυξητικού παράγοντα	Θεραπεία Μεδουλοβλαστώματος
Hungarian	Humán placenta növekedési factor receptorkötő helye elleni humaizált IgG1 monoklonális antitest	Medulloblastoma kezelése
Italian	Anticorpo monoclonale umanizzato IgG1 rivolto verso il sito di legame del recettore del fattore di crescita placentare umano	Trattamento del medulloblastoma
Latvian	Humanizēta IgG1 monoklonālā antiviela pret cilvēka placentas augšanas faktora receptoru piesaistes vietu	Meduloblastomas ārstēšana

[1] At the time of designation

Language	Active ingredient	Indication
Lithuanian	Žmogaus monokloninis antikūnas IgG1 prieš receptorių, surišančią žmogaus placentos augimo faktoriaus sritį	Meduloblastomos gydymas
Maltese	Antikorp monoklonali IgG1 umanizzat kontra s-sit marbut mar-riċettur tal-fattur uman tat-tkabbir tal-plaċenta	Kura tal-medulloblastoma
Polish	Humanizowane monoklonalne przeciwciało przeciw miejscu wiążącemu receptor ludzkiego czynnika wzrostu łożyska	Leczenie rdzeniaka płodowego
Portuguese	Anticorpo monoclonal IgG1 humanizado dirigido contra o local de ligação ao recetor do fator de crescimento placentário humano	Tratamento do medulloblastoma
Romanian	Anticorpi monoclonali umanizaţi IgG1 îndreptaţi împotriva sitului de legare al receptorului factorului de creştere placentar uman	Tratamentul meduloblastomului
Slovak	Humanizovaná IgG1 monoklonálna protilátka proti receptoru viažucemu ľudský placentárny rastový faktor	Liečba meduloblastómu
Slovenian	Humanizirano IgG1 monoklonsko protitelo proti vezavnemu mestu receptorja za človeški placentarni rastni faktor	Zdravljenje nevroendokrinega meduloblastoma
Spanish	Imunoglobulina G isotipo 1 humanizado IgG1 anticuerpo monoclonal dirijido especificamente contra el sitio de union del factor de crecimiento placental	Tratamiento del meduloblastoma
Swedish	Humaniserad immunoglobulin G av isotyp 1, monoklonal antikropp specifik mot den receptor-bindande delen av human placenta tillväxt faktor	Behandling av medulloblastom
Norwegian	Humanisert IgG1 monoklonalt antistoff mot reseptorbindende del av human morkakevekstfaktor	Behandling av medulloblastom
Icelandic	Mannaaðlagað einstofna mótefni gegn viðtaka-bindistað manna fylgju vaxtarþætti	Meðferð við mænukímfrumuæxli