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EMA/COMP/722699/2014
Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

5,5'-(4-(trifluromethyl)benzylazanediyl)bis(methylene)diquinolin-8-ol for the treatment of glioma

On 16 December 2014, orphan designation (EU/3/14/1408) was granted by the European Commission to Prof. Olivier Blin, France, for 5,5'-(4-(trifluromethyl)benzylazanediyl)bis(methylene)diquinolin-8-ol for treatment of glioma.

What is glioma?

Glioma is a type of brain tumour that affects the 'glial' cells (the cells that surround and support the nerve cells). Patients with glioma can have severe symptoms, but the types of symptoms experienced depend on where the tumour develops in the brain.

Symptoms can include headaches, nausea (feeling sick), loss of appetite, vomiting, and changes in personality, mood, mental capacity and concentration. About one fifth of patients with glioma have seizures (fits) for months or years before the disease is diagnosed.

Glioma is a long-term debilitating and life-threatening disease because it causes severe damage to 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, glioma affected approximately 2 in 10,000 people in the European Union (EU). This was equivalent to a total of around 102,000 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).

*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 511,100,000 (Eurostat 2014).

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What treatments are available?

At the time of designation, several medicines were authorised for the treatment of glioma in the EU. Treatments included surgery, radiotherapy (treatment with radiation), and chemotherapy (medicines to treat cancer). Patients also received treatments for the symptoms of glioma, including corticosteroids to reduce pressure within the skull and medicines to prevent seizures.

The sponsor has provided sufficient information to show that the medicine might be of significant benefit for patients with glioma because early studies in experimental models showed that the medicine might improve survival when compared with temozolomide, a medicine commonly used for glioma. 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?

The medicine is expected to block the formation of new blood vessels that are necessary for cancer cells to grow and multiply. It does this by attaching to copper and blocking its action. As copper activates the production of cells that line the surface of blood vessels, called endothelial cells, by blocking its action this medicine is expected to stop the blood supply to cancer cells leading to their death. In addition, the medicine is expected to block internal structures within cells called proteasomes, which break down certain proteins in the cell. When these proteins are no longer broken down, the cells eventually die.

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, no clinical trials with the medicine in patients with glioma had been started.

At the time of submission, the medicine was not authorised anywhere in the EU for glioma 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 13 November 2014 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

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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	5,5'-(4-(trifluromethyl)benzylazanediyl)bis(methylene)diquinolin-8-ol	Treatment of glioma
Bulgarian	5,5'-(4-(трифлуорометил)бензилазанедиил)бис (метилен)диквинолин-8-ол	Лечение на глиома
Croatian	5,5'-(4-(trifluorometil)benzilazandiil)bis(metilen)dikinolin-8-ol	Liječenje glioma
Czech	5,5'-(4-(trifluormethyl)benzylazanediyl)bis(methylen)diquinolin-8-ol	Léčba gliomů
Danish	5,5'-(4-(trifluormethyl)benzylazanediyl)bis(methylen)diquinolin-8-ol	Behandling af gliom
Dutch	5,5'-(4-(trifluormethyl)benzylazanediyl)bis(methyleen)diquinolin-8-ol	Behandeling van glioma
Estonian	5,5'-(4-(triflurometüül)benzylazanediyl)bis(metüleen)diquinolin-8-ool	Glioomi ravi
Finnish	5,5'-(4-(trifluorimetyyli)benzylazanediyl)bis(metyleeni)diquinolin-8-oli	Glioman hoito
French	5,5'-(4-(trifluorométhyle)benzylazanediyl)bis(méthylène)diquinolin-8-ol	Traitement des gliomes
German	5,5'-(4-(Trifluormethyl)benzylazanediyl)bis(methylen)diquinolin-8-ol	Behandlung von Gliomen
Greek	5,5'-(4-(τριφθορομεθυλ)lβενζυλαζανεδιυλ)δις(μεθυλεν)δικινολιν-8-όλη	Θεραπεία του γλοιώματος
Hungarian	5,5'-(4-(trifluoro-metil)benzilazanediyl)bisz(metilén)diquinolin-8-ol	Glioma kezelése
Italian	5,5'-(4-(trifluromethyl)benzylazanediyl)bis(metilene)diquinolin-8-olo	Trattamento del glioma
Latvian	5,5'-(4-(trifluormetil)benzilazanediil)bis(metilēn)dikvinolīn-8-ols	Gliomas ārstēšana
Lithuanian	5,5'-(4-(triflurometil)benzilazanediil)bis(metileno)dikvinolin-8-olis	Gliomos gydymas
Maltese	5,5'-(4-(trifluromethyl)benzylazanediyl)bis(methylene)diquinolin-8-ol	Kura tal-glioma
Polish	5,5'-(4-(trifluorometylo)benzylazanediyl)-bis(metyleno)dichinolin-8-ol	Leczenie glejaka
Portuguese	5,5'-(4-(trifluorometil)benzilazanedil)bis(metileno)diquinolin-8-ol	Tratamento do glioma
Romanian	5,5'-(4-(trifluorometil)benzilazanediil)bis(metilen)dichinolin-8-ol	Tratamentul gliomului
Slovak	5,5'-(4-(trifluórmetyl)benzylazanediyl)bis(metylén)dichiinolín-8-ol	Liečba gliómu
Slovenian	5,5'-(4-(trifluorometil)benzilazanedil)bis(metilen)dikinolin-8-ol	Zdravljenje glioma

[1] At the time of designation

Language	Active ingredient	Indication
Spanish	5,5'-(4-(trifluorometil) benzilazanedil)bis(metilen)diquinolin-8-ol	Tratamiento del glioma
Swedish	5,5'-(4-(trifluormetyl)benzylazanediyl)bis(metylen)diquinolin-8-ol	Behandling av gliom
Norwegian	5,5'-(4-(trifluormetyl)benzylazandiyl)bis(metylen)dikinolin-8-ol	Behandling av gliom
Icelandic	5,5'-(4-(tríflúormetýl)benzýlazanediýl)bis(metýlen)díquínólín-8-ól	Meðferð á glíóma