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Public summary of opinion on orphan designation

Navitoclax for the treatment of myelofibrosis

On 16 December 2019, orphan designation EU/3/19/2233 was granted by the European Commission to AbbVie Deutschland GmbH & Co. KG, Germany, for navitoclax for the treatment of myelofibrosis.

What is myelofibrosis?

Myelofibrosis is a disease in which the bone marrow (spongy tissue inside the large bones where blood cells are produced) becomes dense and fibrous and starts producing abnormal immature blood cells that replace the normal blood cells. In myelofibrosis, some immature blood cells migrate from the bone marrow to other organs, such as the spleen and liver, where they mature. This causes the organs to become enlarged. Patients with the disease can develop several symptoms, including bone pain, tiredness, weakness, weight loss, fever and bleeding.

Myelofibrosis is a debilitating disease that is long-lasting and life-threatening because it can lead to severe anaemia (low red blood cell counts) and infections and can result in leukaemia (cancer of the white blood cells).

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

At the time of designation, myelofibrosis affected less than 1 in 10,000 people in the European Union (EU). This was equivalent to a total of fewer than 52,000 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, busulfan, hydroxycarbamide and ruxolitinib were authorised in the EU for myelofibrosis. In addition, medicines were authorised to treat the symptoms, including erythropoietin (a hormone that stimulates the production of red blood cells) to treat anaemia, and surgery was used to remove the enlarged spleen. In some patients, haematopoietic (blood) stem-cell transplantation was

*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 518,400,000 (Eurostat 2019).

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used to treat the disease. This is a procedure where the patient's bone marrow is cleared of cells and replaced by stem cells from a donor to form new bone marrow.

The sponsor has provided sufficient information to show that navitoclax might be of significant benefit for patients with myelofibrosis. Early studies showed a reduction in spleen size when navitoclax was given to patients already taking ruxolitinib or another 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?

Navitoclax blocks the activity of a group of proteins called Bcl-2, which normally prevent cells from dying. When used together with chemotherapy or radiation, the medicine is expected to promote cell death and increase the ability of these treatments to kill cells, thereby increasing their effectiveness in treating the disease.

What is the stage of development of this medicine?

The effects of navitoclax have been evaluated in experimental models.

At the time of submission of the application for orphan designation, clinical trials with navitoclax in patients with myelofibrosis were ongoing.

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

In accordance with Regulation (EC) No 141/2000, the COMP adopted a positive opinion on 7 November 2019, 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:

Contact details of the current sponsor for this orphan designation can be found on EMA website.

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	Navitoclax	Treatment of myelofibrosis
Bulgarian	Навитоклакс	Лечение на миелофиброза
Croatian	Navitoklaks	Liječenje mijelofibroze
Czech	Navitoklax	Léčba myelofibrózy
Danish	Navitoclax	Behandling af myelofibrose
Dutch	Navitoclax	Behandeling van myelofibrose
Estonian	Navitoklaks	Müelofibroosi ravi
Finnish	Navitoklaksi	Myelofibroosin hoito
French	Navitoclax	Traitement de la myélofibrose
German	Navitoclax	Behandlung der Myelofibrose
Greek	Ναβιτοκλάξη	Θεραπεία της μυελοϊνωσης
Hungarian	Navitoklax	Myelofibrosis kezelése
Italian	Navitoclax	Trattamento della mielofibrosi
Latvian	Navitoklakss	Mielofibrozes ārstēšana
Lithuanian	Navitoklaksas	Mielofibrozės gydymas
Maltese	Navitoclax	Kura tal-mjelofibrożi
Polish	Nawitoklaks	Leczenie mielofibrozy
Portuguese	Navitoclax	Tratamento da mielofibrose
Romanian	Navitoclax	Tratamentul mielofibrozei
Slovak	Navitoklax	Liečba myelofibrózy
Slovenian	Navitoklaks	Zdravljenje mielofibroze
Spanish	Navitoclax	Tratamiento de la mielofibrosis
Swedish	Navitoklax	Behandling av myelofibros
Norwegian	Navitoklaks	Behandling av myelofibrose
Icelandic	Navitoclax	Meðferð á mýelófíbrósu

[1] At the time of designation