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Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Nilotinib hydrochloride monohydrate for the treatment of gastrointestinal stromal tumours

First publication	29 July 2008
Rev.1: withdrawal from the Community Register	11 June 2013
Rev.2: sponsor's change of address	5 February 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.	

Please note that this product was withdrawn from the Community Register of designated Orphan Medicinal Products in May 2013 on request of the Sponsor.

On 13 April 2007, orphan designation (EU/3/07/447) was granted by the European Commission to Novartis Europharm Limited, United Kingdom, for nilotinib hydrochloride monohydrate or the treatment of gastrointestinal stromal tumours.

What are gastrointestinal stromal tumours?

Gastrointestinal stromal tumours (GIST) belong to a special group of gastro-intestinal tumours, called sarcomas. Sarcomas may occur also in other soft tissues of the body; they are cancers of the tissues that support, surround and protect the organs. The cause of GIST is largely unknown. GIST are most common in the stomach (60-70%), followed by the small intestine (20-30%), and then the colon and rectum (5%). GISTs occur predominantly in middle-aged and older persons, and are considered as a life-threatening condition.



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

At the time of designation, GIST affected approximately 2 in 10,000 people in the European Union (EU). This was equivalent to a total of around 100,000 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?

The current methods of treatment of GIST are surgical removal of the tumour, and treatment with one (authorised) medicinal product, that belongs to a group of substances called tyrosine kinase inhibitors. These products are aimed at slowing down and potentially stopping tumour growth.

Nilotinib hydrochloride monohydrate might be of potential significant benefit for the treatment of malignant GIST, mainly because it could act in a different way to currently authorised product, and might thus 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?

Enzymes are proteins produced by the human body that speed up the transformation of certain substances into other substances. Nilotinib blocks (inhibits) a certain class of enzymes called tyrosine kinases. These enzymes play role in a cascade of molecular reactions that bring a certain signal from outside the cell into the cell thereby controlling the growth of cells. In chronic myeloid leukaemia, the function of these enzymes is disturbed causing uncontrolled growth and multiplication of the cancer cells. Nilotinib might, by inhibition of one or more of these enzymes activity help slowing down or stopping the further growth of the cancer cells.

What is the stage of development of this medicine?

The effects of nilotinib gastrointestinal stromal tumours were evaluated in experimental models.

At the time of submission of the application for orphan designation, clinical trials in patients with gastrointestinal stromal tumours were ongoing.

Nilotinib hydrochloride monohydrate was not authorised anywhere worldwide for chronic myeloid leukaemia or designated as orphan medicinal product elsewhere for this condition, at the time of submission.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 8 March 2007 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 500,300,000 (Eurostat 2007).

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 languages¹, Norwegian and Icelandic

Language	Active Ingredient	Indication
English	Nilotinib hydrochloride monohydrate	Treatment of gastro intestinal stromal tumours
Bulgarian	Нилотиниб хидрохлорид монохидрат	Лечение на гастро-интестинални стромални тумори
Czech	Nilotinib hydrochlorid monohydrát	Léčba gastrointestinálních stromálních tumorů
Danish	Nilotinibhydrochlorid monohydrate	Behandling af gastrointestinale stromale tumorer
Dutch	Nilotinib hydrochloride monohydraat	Behandeling van gastro-intestinale stromale tumoren
Estonian	Nilotiniibhüdrokloriid monohüdraat	Seedetrakti stroomaalsete kasvajate ravi
Finnish	Nilotinibihydrokloridimonohydraatti	Ruuansulatuskanavan pahanlaatuisten stroomatumorien hoito
French	Chlorhydrate de nilotinib monohydraté	Traitement des tumeurs stromales gastrointestinales
German	Nilotinibhydrochlorid-Monohydrat	Behandlung von gastrointestinalen Stromatumoren
Greek	Νιλοτινίμπη υδροχλωρική μονοϋδρική	Θεραπευτική αγωγή των γαστρεντερικών στρωματικών όγκων
Hungarian	Nilotinib-hidroklorid-monohidrát	Gasztrointesztinális stromalis tumorok kezelése
Italian	Nilotinib cloridrato monoidrato	Trattamento dei tumori stromali gastrointestinali
Latvian	Nilotiniba hidrohlorīda monohidrāts	Kuņģa-zarnu trakta stromas audzēju terapija
Lithuanian	Nilotinibo hidroklorido monohidratas	Skrandžio ir žarnų stromos auglių gydymas
Polish	Nilotynibu chlorowoderek jednowodny	Leczenie nowotworów podścieliska przewodu pokarmowego
Portuguese	Cloridrato de nilotinib monohidratado	Tratamento de tumores estromais gastrointestinais
Romanian	Clorhidrat de nilotinib monohidrat	Tratamentul tumorilor stromale gastro-intestinale
Slovak	Monohydrát nilotinibiumchloridu	Liečba gastrointestinálnych stromálnych nádorov
Slovenian	Nilotinibijev klorid monohidrat	Zdravljenje gastrointestinalnih stromalnih tumorjev
Spanish	Clorhidrato de nilotinib monohidratado	Tratamiento de los tumores del estroma gastrointestinal
Swedish	Nilotinibhydrokloridmonohydrat	Behandling av gastrointestinala stromala tumörer

¹ At the time of designation

Language	Active Ingredient	Indication
Norwegian	Nilotinibhydrokloridmonohydrat	Behandling av gastrointestinale stromale tumorer
Icelandic	Nilótíníb hydróklóríð einhýdrat	Til meðferðar við grunnfrumuæxlum í meltingarfærum