1 June 2015
EMA/COMP/793147/2011 Rev.2
Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

1-(4-{4-amino-7-[1-(2-hydroxyethyl)-1H- pyrazol-4-yl]thieno[3,2-c]pyridin-3-yl}phenyl)-3-(3-fluorophenyl)urea for the treatment of acute myeloid leukaemia

First publication	22 November 2011
Rev.1: transfer of sponsorship	7 March 2013
Rev.2: withdrawal from the Community Register	1 June 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Please note that this product was withdrawn from the Community Register of designated Orphan Medicinal Products in April 2015 on request of the Sponsor.

On 27 October 2011, orphan designation (EU/3/11/915) was granted by the European Commission to Abbott Laboratories, United Kingdom, for 1-(4-{4-amino-7-[1-(2-hydroxyethyl)-1H- pyrazol-4-yl]thieno[3,2-c]pyridin-3-yl}phenyl)-3-(3-fluorophenyl)urea for the treatment of acute myeloid leukaemia.

The sponsorship was transferred to AbbVie Ltd, United Kingdom, in January 2013.

What is acute myeloid leukaemia?

Acute myeloid leukaemia (AML) is a cancer of the white blood cells (cells that fight against infections). In patients with AML, the bone marrow (the spongy tissue inside the large bones) produces large numbers of abnormal, immature white blood cells. These abnormal cells quickly build up in large numbers in the bone marrow and are found in the blood.

AML is a long-term debilitating and life-threatening disease because these abnormal immature cells take the place of the normal white blood cells and platelets, reducing the patient's ability to fight infections and causing bleeding in the brain and gut.

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

At the time of designation, AML affected approximately 0.6 in 10,000 people in the European Union (EU). This was equivalent to a total of around 30,000 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?

Treatment for AML is complex and depends on a number of factors including the extent of the disease, whether it has been treated before, and the patient's age, symptoms and general state of health. At the time of designation, the main treatments for AML were chemotherapy (medicines to treat cancer) and haematopoietic (blood) stem-cell transplantation (a complex procedure where the patient receives stem cells from a matched donor to help restore the bone marrow).

The sponsor has provided sufficient information to show that this medicine might be of significant benefit for patients with AML because it works in a different way to existing treatments and early studies indicate that it might be used alone or in combination with existing methods to 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?

The medicine is expected to work mainly by blocking enzymes (specialised proteins) called Aurora kinases which play a role in cell division and multiplication. By blocking these enzymes, the medicine is expected to block the division and multiplication of tumour cells, causing them to die. The medicine is also expected to block some enzymes called tyrosine kinases which are found in receptors on the surface of tumour cells for growth factors such as vascular endothelial growth factor (VEGF) and platelet-derived growth factor (PDGF). VEGF and PDGF are involved in the growth of blood vessels that supply the tumour and help regulate cell growth and division. By blocking these receptors, this medicine is expected to slow down the growth of cancer cells by reducing their blood supply.

The medicine is expected to be given as a tablet.

What is the stage of development of this medicine?

The effects of the medicinal product have been evaluated in experimental models.

At the time of submission of the application for orphan designation, clinical trials with the medicine in patients with advanced blood cancers were ongoing.

At the time of submission, the medicine was not authorised anywhere in the EU for AML 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 September 2011 recommending the granting of this designation.

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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 507,700,000 (Eurostat 2011).

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 languages[1], Norwegian and Icelandic

Language	Active ingredient	Indication
English	1-(4-{4-amino-7-[1-(2-hydroxyethyl)-1*H*-pyrazol-4-yl]thieno[3,2-*c*]pyridin-3-yl}phenyl)-3-(3-fluorophenyl)urea	Treatment of acute myeloid leukaemia
Bulgarian	1-(4-{4-амино-7-[1-(2-хидроксиетил)-1*H*-пиразол-4-ил]тиено[3,2-*c*] пиридин-3-ил}фенил)-3-(3-флуорофенил)урея	Лечение на остра миелоидна левкемия
Czech	1-(4-{4-amino-7-[1-(2-hydroxyethyl)-1*H*-pyrazol-4-yl]thieno[3,2-*c*]pyridin-3-yl}fenyl)-3-(3-fluorofenyl)urea	Léčba akutní myeloidní leukémie
Danish	1-(4-{4-amino-7-[1-(2-hydroxyethyl)-1*H*-pyrazol-4-yl]thieno[3,2-*c*]pyridin-3-yl}phenyl)-3-(3-fluorophenyl)urinstof	Behandling af akut myeloid leukæmi
Dutch	1-(4-{4-amino-7-[1-(2-hydroxyethyl)-1*H*-pyrazol-4-yl]-thieno-[3,2-*c*]-pyridin-3-yl}-fenyl)-3-(3-fluorofenyl)-ureum	Behandeling van acute myeloïde leukemie
Estonian	1-(4-{4-amino-7-[1-(2-hüdroksüetüül)-1*H*-pürasool-4-üül]tieno[3,2-*c*]püridiin-3-üül}fenüül)-3-(3-fluorofenüül)uurea	Akuutse müeloidse leukeemia ravi
Finnish	1-(4-{4-amino-7-[1-(2-hydroksietyyli)-1*H*-pyratsoli-4-yl]tieno[3,2-*c*]pyridiini-3-yl}fenyyli)-3-(3-fluorofenyylil)urea	Akuutin myelooisen leukemian hoito
French	1-(4-{4-amino-7-[1-(2-hydroxyethyl)-1*H*-pyrazol-4-yl]thieno[3,2-*c*]pyridin-3-yl}phenyl)-3-(3-fluorophenyl)urée	Traitement de la leucémie aiguë myéloïde
German	1-(4-{4-Amino-7-[1-(2-hydroxyethyl)-1*H*-pyrazol-4-yl]thieno[3,2-*c*]pyridin-3-yl}phenyl)-3-(3-fluorophenyl)harnstoff	Behandlung der akuten myeloischen Leukämie
Greek	1-(4-{4-αμινο-7-[1-(2-υδροξυαιθυλο)-1*H*-πυραζολ-4-υλ]θιενο[3,2-*c*]πυριδινο-3-yl}φαινυλο)-3-(3-φλουοροφαινυλο) ουρία	Θεραπεία της οξείας μυελοειδούς λευχαιμίας
Hungarian	1-(4-{4-amino-7-[1-(2-hidroxietil)-1*H*-pirazol-4-il]tieno[3,2-*c*]piridin-3-il}fenil)-3-(3-fluorofenil)urea	Akut myeloid leukaemia kezelése
Italian	1-(4-{4-amino-7-[1-(2-idrossietil)-1*H*-pirazol-4-il]tieno[3,2-*c*]piridin-3-il}fenil)-3-(3-fluorofenil)urea	Trattamento della leucemia mieloide acuta
Latvian	1-(4-{4-amino-7-[1-(2-hidroksietil)-1*H*-pirazol-4-il]tiēno[3,2-*c*]piridīn-3-il}fenil)-3-(3-fluorofenil)urīnviela	Akūtas mieloleikozes ārstēšana
Lithuanian	1-(4-{4-amino-7-[1-(2-hidroksietil)-1*H*-pirazol-4-il]tieno[3,2-*c*]piridin-3-il}fenil)-3-(3-fluorofenil)urea	Ūmios mieloleukozės gydymas

[1] At the time of designation

Language	Active ingredient	Indication
Maltese	1-(4-{4-amino-7-[1-(2-hydroxyethyl)-1*H*-pyrazol-4-yl]thieno[3,2-*c*]pyridin-3-yl}phenyl)-3-(3-fluorophenyl)urea	Kura tal-lewkimja mjelojda akuta
Polish	1-(4-{4-amino-7-[1-(2-hydroksyetylo)-1*H*-pirazol-4-yl]tieno[3,2-*c*]pirydyn-3-yl}fenylo)-3-(3-fluorofenylo)mocznik	Leczenie ostrej białaczki szpikowej
Portuguese	1-(4-{4-amino-7-[1-(2-hidroxietil)-1*H*-pirazol-4-il]tieno[3,2-*c*]piridina-3-il}fenil)-3-(3-fluorofenil)ureia	Tratamento da leucémia mielóide aguda
Romanian	1-(4-{4-amino-7-[1-(2-hidroxietil)-1*H*-pirazol-4-il]tieno[3,2-*c*]piridin-3-il}fenil)-3-(3-fluorofenil)uree	Tratamentul leucemiei mieloide acute
Slovak	1-(4-{4-amino-7-[1-(2-hydroxyetyl)-1*H*-pyrazol-4-yl]tieno[3,2-*c*]pyridín-3-yl}fenyl)-3-(3-fluorofenyl)močovina	Liečba akútnej myeloickej leukémie
Slovenian	1-(4-{4-amino-7-[1-(2-hidroksietil)-1*H*-pirazol-4-yl]tieno[3,2-*c*]piridin-3-il}fenil)-3-(3-fluorofenil)sečnina	Zdravljenje akutne mieloične levkemije
Spanish	1-(4-{4-amino-7-[1-(2-hidroxietil)-1*H*-pirazol-4-il]tieno[3,2-*c*]piridin-3-il}fenil)-3-(3-fluorofenil)urea	Tratamiento de la leucemia mieloide aguda
Swedish	1-(4-{4-amino-7-[1-(2-hydroxyetyl)-1*H*-pyrazol-4-yl]thieno[3,2-*c*]pyridin-3-yl}fenyl)-3-(3-fluorofenyl)urea	Behandling av akut myeloisk leukemi
Norwegian	1-(4-{4-amino-7-[1-(2-hydroksyetyl)-1*H*-pyrazol-4-yl]tieno[3,2-*c*]pyridin-3-yl}fenyl)-3-(3-fluorofenyl)urea	Behandling av akutt myelogen leukemi
Icelandic	1-(4-{4-amínó-7-[1-(2-hýdróxyethýl)-1*H*-pýrazól-4-ýl]thíenó[3,2-*c*]pýridín-3-ýl}phenýl)-3-(3-flúóróphenýl)úrea	Meðferð við bráðu kyrningahvítblæði