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Committee for Orphan Medicinal Products

## Public summary of opinion on orphan designation

2-[[[3-({4-[(5-{2-[(3-fluorophenyl)amino]-2-oxoethyl}-1H-pyrazol-3-yl)amino]-quinazolin-7-yl}oxy)propyl](ethyl)amino]ethyl dihydrogen phosphate trihydrate for the treatment of acute myeloid leukaemia

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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.	

On 5 December 2008, orphan designation (EU/3/08/590) was granted by the European Commission to AstraZeneca AB, Sweden, for 2-[[[3-({4-[(5-{2-[(3-fluorophenyl)amino]-2-oxoethyl}-1H-pyrazol-3-yl)amino]-quinazolin-7-yl}oxy)propyl](ethyl)amino]ethyl dihydrogen phosphate trihydrate for the treatment of acute myeloid leukaemia.

### What is acute myeloid leukaemia?

Acute myeloid leukaemia (AML) is a cancer of the white blood cells. In this disease, the bone marrow produces large numbers of abnormal, immature white blood cells called 'blasts'. These abnormal cells quickly build up in large numbers in the bone marrow and are found in the blood.

AML is life-threatening because these immature cells take the place of the normal white blood cells. As a result, the patient's ability to fight diseases is reduced.

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

At the time of designation, AML affected less than 2 in 10,000 people in the European Union (EU). This was equivalent to a total of fewer than 101,000 people\*, and is below the ceiling for orphan

\*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 502,800,000 (Eurostat 2008).



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. The primary treatment for AML is chemotherapy (using medicines to kill cancer cells).

The sponsor has provided sufficient information to show that 2-[[3-({4-[(5-{2-[(3-fluorophenyl)amino]-2-oxoethyl})-1H-pyrazol-3-yl)amino]-quinazolin-7-yl}oxy)propyl](ethyl)amino]ethyl dihydrogen phosphate trihydrate might be of significant benefit for the treatment of AML because it may be more effective than other medicines for this disease. 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?**

2-[[3-({4-[(5-{2-[(3-fluorophenyl)amino]-2-oxoethyl})-1H-pyrazol-3-yl)amino]-quinazolin-7-yl}oxy)propyl](ethyl)amino]ethyl dihydrogen phosphate trihydrate is expected to work by blocking enzymes called 'aurora kinases'. These enzymes play an essential role in controlling the movement of the chromosome separation when the cells divide. By disrupting cell division, this medicine is expected to reduce the division of cancerous cells in AML.

### **What is the stage of development of this medicine?**

The effects of 2-[[3-({4-[(5-{2-[(3-fluorophenyl)amino]-2-oxoethyl})-1H-pyrazol-3-yl)amino]-quinazolin-7-yl}oxy)propyl](ethyl)amino]ethyl dihydrogen phosphate trihydrate have been evaluated in experimental models.

At the time of submission of the application for orphan designation, clinical trials in patients with acute myeloid leukaemia were ongoing.

At the time of submission, 2-[[3-({4-[(5-{2-[(3-fluorophenyl)amino]-2-oxoethyl})-1H-pyrazol-3-yl)amino]-quinazolin-7-yl}oxy)propyl](ethyl)amino]ethyl dihydrogen phosphate trihydrate was not authorised anywhere in the world for AML or designated as orphan medicinal product for this condition.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 8 October 2008 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:

AstraZeneca AB  
S-151 85 Södertälje  
Sweden  
Tel. +44 1625 514 776 (AstraZeneca UK Limited)  
E-mail: [Olaparib@astrazeneca.com](mailto:Olaparib@astrazeneca.com)

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<sup>1</sup>, Norwegian and Icelandic

Language	Active ingredient	Indication
English	2-[[[3-({4-[(5-{2-[(3-Fluorophenyl)amino]-2-oxoethyl}-1H-pyrazol-3-yl)amino]-quinazolin-7-yl}oxy)propyl](ethyl)amino]ethyl dihydrogen phosphate trihydrate	Treatment of acute myeloid leukaemia
Bulgarian	2-[[[3-({4-[(5-{2-[(3-Флуорофенил)амино]-2-оксоетил}-1H-пиразол-3-ил)амино]-квиназолин-7-ил}окси)пропил](етил)амино]етил дихидроген фосфат трихидрат	Лечение на остра миелоидна левкемия
Czech	2-[[[3-({4-[(5-{2-[(3-Fluorofenyl)amino]-2-oxoethyl}-1H-pyrazol-3-yl)amino]-chinazolin-7-yl}oxy)propyl](ethyl)amino]ethyl dihydrogenfosfát trihydrát	Léčba akutní myeloidní leukémie
Danish	2-[[[3-({4-[(5-{2-[(3-Fluorophenyl)amino]-2-oxoethyl}-1H-pyrazol-3-yl)amino]-quinazolin-7-yl}oxy)propyl](ethyl)amino]ethyl dihydrogen fosfat trihydrat	Behandling af akut myeloid leukæmi
Dutch	2-[[[3-({4-[(5-{2-[(3-Fluorfenyl)amino]-2-oxoethyl}-1H-pyrazool-3-yl)amino]-quinazoline-7-yl}oxy)propyl](ethyl)amino]ethyl diwaterstoffosfaat trihydraat	Behandeling van acute myeloïde leukemie
Estonian	2-[[[3-({4-[(5-{2-[(3-fluorofenüül)amino]-2-oksoetüül}-1H-pürasool-3-üül)amino]-kinasoliin-7-üül}oksü)propüül](etüül)amino]etüüldivesinikfosfaattrihüdraat	Akuutse müeloidse leukeemia ravi
Finnish	2-[[[3-({4-[(5-{2-[(3-Fluorofenyyl)i amino]-2-oksoetyyli}-1H-pyratsol-3-yyli)amino]-kinatsolin-7-yyli}oksi)proppyli](etyyli)amino]etyylidivetyfosfaattitrihydraatti	Akuutin myelooisen leukemian hoito
French	Dihydrogénophosphate de 2-[[[3-({4-[(5-{2-[(3-Fluorophényl)amino]-2-oxoéthyl}-1H-pyrazol-3-yl)amino]-quinazolin-7-yl}oxy)propyl](éthyl) amino]éthyle trihydraté	Traitement de la leucémie aiguë myéloïde
German	2-[[[3-({4-[(5-{2-[(3-Fluorophenyl)amino]-2-oxoethyl}-1H-pyrazol-3-yl)amino]-quinazolin-7-yl}oxy)propyl](ethyl)amino]ethyl-dihydrogenphosphat-trihydrat	Behandlung der akuten myeloischen Leukämie
Greek	2-[[[3-({4-[(5-{2-[(3-Φλουοροφενυλ)αμινο]-2-οξοαιθυλ}-1H-πυραζολ-3-υλ)αμινο]-κιναζολιν-7-υλ}οξυ)προπυλ](αιθυλ)αμινο]αιθυλ διυδρογονο φωσφορικο τριενυδρο	Θεραπεία της οξείας μυελοειδούς λευχαιμίας
Hungarian	2-[[[3-({4-[(5-{2-[(3-fluorofenil)amino]-2-oxoetil}-1H-pirazol-3-il)amino]-kinazolin-7-il}oxi)propil](etil)amino]etil dihidrogén foszfát trihidrát	Akut myeloid leukaemia kezelése

<sup>1</sup> At the time of designation

Language	Active ingredient	Indication
Italian	2-[[[3-({4-[(5-{2-[(3-Fluorofenil)amino]-2-ossoetil}-1H-pirazol-3-il)amino]-chinazolin-7-il}ossi)propil](etil)amino]etil diidrogeno fosfato triidrato	Trattamento della leucemia mieloide acuta
Latvian	2-[[[3-({4-[(5-{2-[(3-Fluorfenil)amino]-2-oksoetil}-1H-pirazola-3-il)amino]-kinazolīna-7-il}oksi)propil](etil)amino]etil dihidrogēnfosfāta trihidrāts	Akūtas mieloleikozes ārstēšana
Lithuanian	2-[[[3-({4-[(5-{2-[(3-fluorofenil)amino]-2-oksoetil}-1H-pirazol-3-il)amino]-kvinazolin-7-il}oksi)propil](etil)amino]etil divandenilio fosfato trihidratas	Ūmios mieloleukozės gydymas
Maltese	2-[[[3-({4-[(5-{2-[(3-Fluorophenyl)amino]-2-oxoethyl}-1H-pyrazol-3-yl)amino]-quinazolin-7-yl}oxy)propyl](ethyl)amino]ethyl dihydrogen phosphate trihydrate	Kura tal-lewkimja mjelojda akuta
Polish	2-[[[3-({4-[(5-{2-[(3-fluorofenilo)amino]-2-oksyetylo}-1H-pyrazol-3-yl)amino]-chinazolin-7-ylu}oksy)propylo](etylo)amino] etylotrójwodny bifosforanu	Leczenie ostrej białaczki szpikowej
Portuguese	2-[[[3-({4-[(5-{2-[(3-Fluorofenil)amino]-2-oxoetil}-1H-pirazol-3-yl)amino]-quinazolina-7-yl}oxi)propil](etil)amino]etil dihidrogenofosfato trihidratado	Tratamento da leucemia mielóide aguda
Romanian	Dihidrogenofosfat de 2-[[[3-({4-[(5-{2-[(3-Fluorofenil)amino]-2-oxoetil}-1H-pirazol-3-il)amino]-chinazolin-7-il}oxi)propil](etil) amino]etil trihidrat	Tratamentul leucemiei mieloide acute
Slovak	trihydrát 2-[[[3-({4-[(5-{2-[(3-fluórfenyl)amino]-2-oxoetyl}-1H-pyrazol-3-yl)amino]-chinazolín-7-yl}oxy)propyl](etyl) amino]etyl dihydrogénfosfātu	Liečba akútnej myeloickej leukémie
Slovenian	2-[[[3-({4-[(5-{2-[(3-fluorofenil)amino]-2-oksoetil}-1H-pirazol-3-il)amino]-kinazolin-7-il}oksi)propil](etil)amino]etil dihidrogen fosfat trihidrat	Zdravljenje akutne mieloične levkemije
Spanish	2-[[[3-({4-[(5-{2-[(3-Fluorofenil)amino]-2-oxoetil}-1H-pirazol-3-il)amino]-quinazolin-7-il}oxi)propil](etil)amino]etil fosfato tri-hidrato di-hidrogenado	Tratamiento de la leucemia mieloide aguda
Swedish	2-[[[3-({4-[(5-{2-[(3-Fluorofenyl)amino]-2-oxoetyl}-1H-pyrazol-3-yl)amino]-quinazolin-7-yl}oxy)propyl](etyl)amino]etyldivätefosfat trihydrat	Behandling av akut myeloisk leukemi
Norwegian	2-[[[3-({4-[(5-{2-[(3-Fluorofenyl)amino]-2-oksoetyl}-1H-pyrazol-3-yl)amino]-kinazolin-7-yl}oksy)propyl](etyl)amino]etyl dihydrogen fosfattrihydrat	Behandling av akutt myelogen leukemi
Icelandic	2-[[[3-({4-[(5-{2-[(3-Fluórfenýl)amínó]-2-oxóethyl}-1H-pýrazól-3-ýl)amínó]-quinazólín-7-ýl}oxý)própýl](ethyl)amínó]ethyl tvíhýdrógen fosfat þríhýdrat	Meðferð við bráðu kyrningahvítblæði