



EUROPEAN MEDICINES AGENCY
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Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Maribavir for the treatment of cytomegalovirus disease in patients with impaired cell mediated immunity

On 7 June 2013, orphan designation (EU/3/13/1133) was granted by the European Commission to ViroPharma SPRL, Belgium, for maribavir for the treatment of cytomegalovirus disease in patients with impaired cell mediated immunity.

What is cytomegalovirus disease?

Cytomegalovirus is a common virus that usually only causes mild infection such as a sore throat. Most people get infected at some stage during their lifetime but are very often unaware of it. After infection, the virus usually remains in the body in a 'latent' (inactive) state and only becomes active if the body's immunity, specifically its cell mediated immunity, is weakened.

Cell mediated immunity is a defence mechanism where specialised cells called T lymphocytes directly neutralise viruses. In people with weakened cell mediated immunity, such as transplant patients receiving immunosuppressant treatment (medicines that reduce the activity of the immune system), cytomegalovirus is not neutralised and cause severe infection.

Cytomegalovirus disease in patients with impaired cell mediated immunity is long-term debilitating and life threatening because of the complications it causes, such as inflammation of the eyes, lungs, liver and digestive tract, as well as reduced survival of transplanted organs or tissues in transplant patients.

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

At the time of designation, cytomegalovirus disease in patients with impaired cell mediated immunity 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 27), Norway, Iceland and Liechtenstein. This represents a population of 509,000,000 (Eurostat 2013).



What treatments are available?

At the time of designation, several antiviral medicines were authorised in the EU for the treatment of cytomegalovirus disease in patients with impaired cell mediated immunity (cidofovir, foscarnet, ganciclovir, valganciclovir and valganciclovir).

The sponsor has provided sufficient information to show that maribavir might be of significant benefit for the treatment of cytomegalovirus disease in patients with impaired cell mediated immunity because there is evidence that it may be effective in patients with cytomegalovirus disease resistant to existing antiviral medicines. 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?

When cytomegalovirus multiplies during an infection, its genetic material (DNA) is replicated and packaged into small protein shells, giving rise to newly formed viruses that can proceed to infect other cells. Maribavir is thought to block the action of an enzyme of the virus called UL97 kinase, which is involved in packaging the DNA in the protein shells and releasing new viruses. By blocking the enzyme, the medicine is expected to prevent viruses from reaching maturity, so that no new infectious viruses can be produced.

What is the stage of development of this medicine?

The effects of maribavir have been evaluated in experimental models.

At the time of submission of the application for orphan designation, clinical trials with maribavir in patients with cytomegalovirus disease and impaired cellular immunity were ongoing.

At the time of submission, maribavir was not authorised anywhere in the EU for treatment of cytomegalovirus disease. Orphan designation of maribavir was previously granted in the EU for prevention of cytomegalovirus disease in patients at risk. Orphan designations had also been granted in the United States of America for prevention and treatment of cytomegalovirus disease in at-risk patients.

In accordance with Regulation (EC) No 141/2000 of 16 December 1999, the COMP adopted a positive opinion on 17 April 2013 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

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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	Maribavir	Treatment of cytomegalovirus disease in patients with impaired cell mediated immunity
Bulgarian	Марибавир	Лечение на цитомегаловирусна (CMV) болест при пациенти с увреден клетъчно-медиран имунитет
Czech	Maribavir	Léčba cytomegalovirové choroby u pacientů s poruchou buněčné imunity
Danish	Maribavir	Behandling af cytomegalovirus -sygdom hos patienter med svækket cellemedieret immunitet
Dutch	Maribavir	Behandeling van cytomegalievirusinfectie bij patiënten met verzwakte cellulaire immuniteit
Estonian	Marivabir	Tsütomegaloviiruse haiguse ravi patsientidel, kellel on rakuvahendatud immunsuse häire
Finnish	Maribaviiri	Sytomegalovirussairauden hoito, kun potilaan soluvälitteinen immunitetti on heikentynyt
French	Maribavir	Traitement de la maladie due au CMV chez les patients présentant une altération de l'immunité cellulaire
German	Maribavir	Behandlung der CMV-Erkrankung bei Patienten mit gestörter zellvermittelter Immunität
Greek	Μαριμπαβίρη	Θεραπεία της λοίμωξης από μεγαλοκυτταροϊό (CMV) σε ασθενείς με διαταραχή της κυτταροεξαρτώμενης ανοσίας
Hungarian	Maribavir	Cytomegalovirus (CMV) okozta betegség kezelése csökkent celluláris immunitással rendelkező betegeknél
Italian	Maribavir	Trattamento della malattia da citomegalovirus (CMV) nei pazienti con deficit dell'immunità cellulo-mediata
Latvian	Maribavirs	Citomegalovīrusa (CMV) infekcijas ārstēšana pacientiem ar šūnu imunitātes traucējumiem
Lithuanian	Maribaviras	Citomegaloviruso (CMV) sukeltos ligos gydymas, pacientams su sutrikusiu ląsteliniu imunitetu
Maltese	Maribavir	Kura ta' mard ikkawżat minn ċitomegalovirus (CMV) f'pazjenti b'dgħjufija fl-immunità medjata miċ-ċelluli
Polish	Maribawir	Leczenie choroby wywołanej przez wirusa cytomegalii (CMV) u pacjentów z zaburzeniami odporności komórkowej
Portuguese	Maribavir	Tratamento da doença por citomegalovírus (CMV) em doentes com alteração da imunidade celular
Romanian	Maribavir	Tratamentul bolii produsă de citomegalovirus (CMV) la pacienții cu imunitate mediată celular deficitară
Slovak	Maribavir	Liečba cytomegalovírusovej choroby u pacientov s poruchou bunkami sprostredkovanej imunity
Slovenian	Maribavir	Zdravljenje citomegalovirusne (CMV) okužbe pri bolnikih z oslajljeno celično imunsko odportnostjo

¹ At the time of designation

Language	Active ingredient	Indication
Spanish	Maribavir	Tratamiento de la enfermedad por citomegalovirus (CMV) en pacientes con deterioro de la inmunidad mediada por células
Swedish	Maribavir	Behandling av cytomegalovirus (CMV) sjukdom hos patienter med nedsatt cellmedierad immunitet
Norwegian	Maribavir	Behandling av cytomegalovirus (CMV)-sykdom hos pasienter med nedsatt cellemediert immunitet
Icelandic	Maribavir	Til meðferðar við cýtómegalóveiru (CMV) sjúkdómi hjá sjúklingum með skert frumubundið ónæmi