



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

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Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

2-hydroxymethyl-2-methoxymethyl-1-azabicyclo[2,2,2]octan-3-one for the treatment of ovarian cancer

On 16 December 2014, orphan designation (EU/3/14/1386) was granted by the European Commission to Aprea AB, Sweden, for 2-hydroxymethyl-2-methoxymethyl-1-azabicyclo[2,2,2]octan-3-one (also known as APR-246) for the treatment of ovarian cancer.

What is ovarian cancer?

Ovarian cancer is cancer of the ovaries, the two organs in the female reproductive system that produce eggs. Most ovarian cancers occur in women over the age of 50 years. Due to the absence of symptoms in the early stages of the disease, the majority of patients are diagnosed when the cancer has spread to other parts of the body.

Ovarian cancer is a long-term debilitating and life-threatening disease that is associated with poor long-term survival.

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

At the time of designation, ovarian cancer affected approximately 2.43 in 10,000 people in the European Union (EU). This was equivalent to a total of around 124,000 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, several medicines were authorised in the EU for the treatment of ovarian cancer. The choice of treatment depended mainly on how advanced the disease was. Treatments included surgery and chemotherapy (medicines to treat cancer).

^{*}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 511,100,000 (Eurostat 2014).



The sponsor has provided sufficient information to show that the medicine might be of significant benefit for patients with ovarian cancer because early studies showed that the medicine given together with platinum-based medicines may have an effect at reducing tumour growth and could be used as an additional or alternative treatment option. 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?

This medicine works by attaching to a cancer-suppressing protein called p53. In many cancers, the gene for the p53 protein is mutated (changed) in such a way that p53 has an 'abnormal shape' and loses its ability to protect against cells becoming cancerous. By attaching to the abnormal p53, this medicine is expected to restore it to a correct shape, thus allowing it to help kill cancer cells.

What is the stage of development of this medicine?

The effects of the medicine have been evaluated in experimental models.

At the time of submission of the application for orphan designation, clinical trials with this medicine in patients with ovarian cancer were ongoing.

At the time of submission, the medicine was not authorised anywhere in the EU for ovarian cancer 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 13 November 2014 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:

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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 | 2-hydroxymethyl-2-methoxymethyl-1-azabicyclo[2,2,2]octan-3-one | Treatment of ovarian cancer |
| Bulgarian | 2-хидроксиметил-2-метоксиметил-1-азабицикло[2,2,2]октан-3-он | Лечение на рак на яйчниците |
| Croatian | 2-hidroksimetil-2-metoksimetil-1-azabiklo[2,2,2]oktan-3-on | Liječenje raka jajnika |
| Czech | 2-hydroxymethyl-2-methoxymethyl-1-azabicyclo[2,2,2]octan-3-one | Léčba karcinomu vaječníků |
| Danish | 2-hydroxymethyl-2-methoxymethyl-1-azabicyclo[2,2,2]octan-3-one | Behandling af ovarie cancer |
| Dutch | 2-hydroxymethyl-2-methoxymethyl-1-azabicyclo[2,2,2]octan-3-one | Behandeling van ovariumkanker |
| Estonian | 2-hüdroksümetüül-2-metoksümetüül-1-azabitsüklo[2,2,2]oktaan-3-oon | Munasarjavähi ravi |
| Finnish | 2-hydroxymethyl-2-methoxymethyl-1-azabicyclo[2,2,2]octan-3-one | Munasarjasyövän hoito |
| French | 2-hydroxymethyl-2-methoxymethyl-1-azabicyclo[2,2,2]octan-3-one | Traitement du cancer de l'ovaire |
| German | 2-hydroxymethyl-2-methoxymethyl-1-azabicyclo[2,2,2]octan-3-one | Behandlung des Ovarialkarzinoms |
| Greek | 2-υδροξυμεθυλ-2-μεθοξυμεθυλ-1-αζαδίκυκλο[2,2,2]οκταν-3-όνη | Θεραπεία του καρκίνου των ωοθηκών |
| Hungarian | 2-hidroksimetil-2-metoximetil-1-azabiklo[2,2,2]oktán-3-on | Petefészekrák kezelése |
| Italian | 2-hydroxymethyl-2-methoxymethyl-1-azabicyclo[2,2,2]octan-3-one | Trattamento del carcinoma dell'ovaio |
| Latvian | 2-hidroksimetil-2-metoksimetil-1-azabiklo[2,2,2]oktān-3-ons | Olnīcu vēža ārstēšana |
| Lithuanian | 2-hidroksimetil-2-metoksimetil-1-azabiklo[2,2,2]oktan-3-onas | Kiaušidžių vėžio gydymas |
| Maltese | 2-hydroxymethyl-2-methoxymethyl-1-azabicyclo[2,2,2]octan-3-one | Kura tal-kanċer ta' l-ovarji |
| Polish | 2-hydroksymetylo-2-metoksymetylo-1-azabicyklo[2,2,2]oktan-3-on | Leczenie raka jajnika |
| Portuguese | 2-hidroksimetil-2-metoximetil-1-azabiklo[2,2,2]octan-3-ona | Tratamento do carcinoma do ovário |
| Romanian | 2-hidroksimetil-2-metoximetil-1-azabiklo[2,2,2]octan-3-onă | Tratamentul cancerului ovarian |
| Slovak | 2-hydroxymetyl-2-metoxymetyl-1-azabicyklo[2,2,2]oktán-3-ón | Liečba rakoviny vaječníkov |

¹ At the time of designation

| Language | Active ingredient | Indication |
|-----------|--|----------------------------------|
| Slovenian | 2-hidroksimetil-2-metoksimetil-1-azabicyclo[2,2,2]oktan-3-one | Zdravljenje raka na jajčnikih |
| Spanish | 2-hidroximetil-2-metoximetil-1-azabicyclo[2,2,2]octan-3-ona | Tratamiento del cáncer de ovario |
| Swedish | 2-hydroxymethyl-2-methoxymethyl-1-azabicyclo[2,2,2]octan-3-one | Behandling av ovarialcancer |
| Norwegian | 2-hydroksymetyl-2-metoksymetyl-1-azabisyklo[2,2,2]oktan-3-on | Behandling av eggstokkreft |
| Icelandic | 2-hýdroxýmethyl-2-methoxýmethyl-1-azabícýcló[2,2,2]octan-3-one | Meðferð eggjastokkakrabbameins |