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EMA/COMP/325300/2010 Rev.1
Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

(3S)-3-{4-[7-(aminocarbonyl)-2H-indazol-2-yl] phenyl} piperidine tosylate monohydrate salt for the treatment of ovarian cancer

On 4 August 2010, orphan designation (EU/3/10/760) was granted by the European Commission to Merck Sharp & Dohme Limited, United Kingdom, for (3S)-3-{4-[7-(aminocarbonyl)-2H-indazol-2-yl] phenyl} piperidine tosylate monohydrate salt (also known as MK-4827) for the treatment of ovarian cancer.

The sponsorship was transferred to TESARO U.K. Limited, United Kingdom, in December 2012.

What is ovarian cancer?

Ovarian cancer is cancer of the ovaries (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 locally or to other parts of the body.

Ovarian cancer is a 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 2.9 in 10,000 people in the European Union (EU). This was equivalent to a total of around 147,000 people^{*}, and is below the threshold 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 27), Norway, Iceland and Liechtenstein. At the time of designation, this represented a population of 506,300,000 (Eurostat 2010).

The sponsor has provided sufficient information to show that (3S)-3-{4-[7-(aminocarbonyl)-2H-indazol-2-yl] phenyl} piperidine tosylate monohydrate salt might be of significant benefit for patients with ovarian cancer because it works in a different way to existing treatments, and early studies indicate that it might be used in combination with existing treatment to improve the outcome 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?

This medicine is expected to work by blocking some enzymes known as poly(ADP-ribose) polymerase (PARP)-1 and -2. These enzymes are used to repair damaged DNA. By blocking PARP-1 and -2, the medicine prevents cancer cells from repairing their DNA, eventually killing them. It is expected that the medicine will be able to be used on its own to kill those cancer cells that do not have other ways of repairing DNA damage, such as those with abnormalities in the BRCA-1 or BRCA-2 genes, which are found in some ovarian cancer patients. The medicine is also expected to be used in combination with other cytotoxic (cell-killing) cancer medicines that cause DNA damage, where it is expected to enhance their activity by preventing DNA repair.

What is the stage of development of this medicine?

The effects of this medicine 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 ovarian cancer were planned.

At the time of submission, this 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 6 May 2010 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	(3S)-3-{4-[7-(aminocarbonyl)-2H-indazol-2-yl]phenyl} piperidine tosylate monohydrate salt	Treatment of ovarian cancer
Bulgarian	(3S)-3-{4-[7-(аминокарбонил)-2H-индазол-2-ил] фенил} пиперидин тозилат монохидратна сол	Лечение на рак на яйчниците
Czech	(3S)-3-{4-[7-(aminokarbonyl)-2H-indazol-2-yl]fenyl}piperidin monohydrát soli tosylátu	Léčba karcinomu vaječníků
Danish	(3S)-3-{4-[7-(aminocarbonyl)-2H-indazol-2-yl]phenyl} piperidin tosylat monohydrat salt	Behandling af ovarie cancer
Dutch	(3S)-3-{4-[7-(aminocarbonyl)-2H-indazol-2-yl]fenyl} piperidine tosylaat monohydraat	Behandeling van ovariumkanker
Estonian	(3S)-3-{4-[7-(aminokarbonüül)-2H-indasool-2-üül]fenüül}piperidiin tosulaatmonohüdraadi sool	Munasarjavähi ravi
Finnish	(3S)-3-{4-[7-(aminokarbonyyli)-2H-indatsoli-2-yyli] fenyyli}piperidiini tosylaatimonohydraattisuola	Munasarjasyövän hoito
French	(3S)-3-{4-[7-(aminocarbonyl)-2H-indazol-2-yl]phényl} piperidine sel de tosylate monohydrate	Traitement du cancer de l'ovaire
German	(3S)-3-{4-[7-(aminocarbonyl)-2H-indazol-2-yl]phenyl} piperidin Tosylat monohydrat Salz	Behandlung des Ovarialkarzinoms
Greek	(3S)-3-{4-[7-(αμινοκαρβονυλο)-2H-ινδαζολ-2-] φαινυλο} πιπεριδίνη μονοϋδρικό τοζυλικό άλας	Θεραπεία του καρκίνου των ωοθηκών
Hungarian	(3S)-3-{4-[7-(aminokarbonil)-2H-indazol-2-il]fenil} piperidin tozilát monohidrárt só	Petefészekrák kezelése
Italian	(3S)-3-{4-[7-(aminocarbonil)-2H-indazol-2-il]fenil} piperidina sale tosilato monoidrato	Trattamento del carcinoma dell'ovaio
Latvian	(3S)-3-{4-[7-(aminokarbonil)-2H-indazol-2-il]fenil} piperidīna tozilāta monohidrāta sāls	Olnīcu vēža ārstēšana
Lithuanian	(3S)-3-{4-[7-(aminokarbonil)-2H-indazol-2-il]fenil} piperidin tosilato monohidrato druska	Kiaušidžių vėžio gydymas
Maltese	(3S)-3-{4-[7-(aminocarbonyl)-2H-indazol-2-yl]phenyl} piperidine tosylate monohydrate salt	Kura tal-kanċer ta' l-ovarji
Polish	Tosylan (3S)-3-{4-[7-(aminokarbonylo)-2H-indazolo-2-ylo]fenylo}piperydyny jednowodny	Leczenie raka jajnika
Portuguese	(3S)-3-{4-[7-(aminocarbonil)-2H-indazole-2-il]fenil} piperidina sal tosilato monohidratado	Tratamento do carcinoma do ovário
Romanian	(3S)-3-{4-[7-(aminocarbonil)-2H-indazol-2-il]fenil} piperidină sare tosilat monohidrat	Tratamentul cancerului ovarian
Slovak	(3S)-3-{4-[7-(aminokarbonyl)-2H-indazol-2-yl]fenyl}piperidín monohydrát tosylát	Liečba rakoviny vaječníkov
Slovenian	(3S)-3-{4-[7-(aminokarbonil)-2H-indazol-2-il]fenil} piperidin tozilát monohidrat	Zdravljenje raka na jajčnikih

¹ At the time of designation

Language	Active ingredient	Indication
Spanish	Monohidrato de sal de (3S)-3-{4-[7-(aminocarbonil)-2H-indazol-2-il] fenil} piperidina tosilato	Tratamiento del cáncer de ovario
Swedish	(3S)-3-{4-[7-(aminokarbonyl)-2H-indazol-2-yl] fenyl} piperidin tosylatmonohydratsalt	Behandling av ovarialcancer
Norwegian	(3S)-3-{4-[7-(aminokarbonyl)-2H-indazol-2-yl] fenyl}piperidin tosylatmonohydrat salt	Behandling av eggstokkreft
Icelandic	(3S)-3-{4-[7-(amínókarbónýl)-2H-indazól-2- ýl] fenýl} píperidín tosýlateinhýdrat salt	Meðferð eggjastokkakrabbameins