



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

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Committee for Orphan Medicinal Products

Public summary of opinion on orphan designation

Vincalukoblastin-23-oic acid, O4-deacetyl-, 2-[(2-mercaptoethoxy)carbonyl]hydrazide, disulfide with N-[4-[(2-amino-3,4-dihydro-4-oxo-6-pteridiny)l)methyl]amino]benzoyl]-L-γ-glutamyl-L-α-aspartyl-L-arginyl-L-α-aspartyl-L-α-aspartyl-L-cysteine for the treatment of ovarian cancer

On 9 February 2012, orphan designation (EU/3/12/959) was granted by the European Commission to Endocyte Europe B.V., the Netherlands, for vincalukoblastin-23-oic acid, O4-deacetyl-, 2-[(2-mercaptoethoxy)carbonyl]hydrazide, disulfide with N-[4-[(2-amino-3,4-dihydro-4-oxo-6-pteridiny)l)methyl]amino]benzoyl]-L-γ-glutamyl-L-α-aspartyl-L-arginyl-L-α-aspartyl-L-α-aspartyl-L-cysteine for the treatment of ovarian cancer.

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 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 not more than 3.5 in 10,000 people in the European Union (EU)*. This is equivalent to a total of not more than 177,000 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 506,300,000 (Eurostat 2011).



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).

The sponsor has provided sufficient information to show that this medicine might be of significant benefit for patients with ovarian cancer because early studies show that it might improve the outcome of women with this condition when used in combination with other treatments and in particular in a subset of the disease called 'folate receptor positive' ovarian cancer. 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 made up of two components, desacetylvinblastine monohydrate (a cell-killing molecule) and folic acid (a tumour-targeting molecule). Most ovarian cancers are 'folate receptor-positive'. This means that the surface of the cancer cell contains high amounts of a receptor which folate (a vitamin required for cell division) attaches to. This receptor can be targeted for treatment. The medicine is expected to attach to the folate receptor of the cancer cell via its folic acid component and enter the cell. The medicine is then expected to release the desacetylvinblastine monohydrate component inside the cell to disrupt small structures called 'microtubules' which are responsible for cell structure and cell division, thereby stopping the cell from dividing and causing it to die.

What is the stage of development of this medicine?

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

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

At the time of submission, the medicinal product 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 7 October 2011 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:

Endocyte Europe B.V.
Prins Bernhardplein 200
1097 JB Amsterdam
The Netherlands
Telephone: +31 20 521 4777
Telefax: +31 20 521 4821
E-mail: info@endocyte.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 languages¹, Norwegian and Icelandic

Language	Active ingredient	Indication
English	Vincaleukoblastin-23-oic acid, O4-deacetyl-2-[(2-mercaptoethoxy)carbonyl]hydrazide, disulfide with N-[4-[(2-amino-3,4-dihydro-4-oxo-6-pteridinyI)methyl]amino]benzoyl]-L-gamma-glutamyl-L-alpha-aspartyl-L-arginyl-L-alpha-aspartyl-L-alpha-aspartyl-L-cysteine	Treatment of ovarian cancer
Bulgarian	Винкалевкобластин-23-ова киселина, O4-деацетил-2-[(2-меркаптоетокси)карбонил]хидразид, дисулфид с N-[4-[(2-амино-3,4-дихидро-4-оксо-6-птеридинил)метил]амино]бензоил]-L-гама-глутамил-L-алфа-аспартил-L-аргинил-L-алфа аспартил-L-алфа-аспартил-L-цистеин	Лечение на рак на яйчниците
Czech	Kyselina vinkaleukoblastinová-23, O4-deacetyl-2-[(2-merkaptoetoxý)karbonyl]hydrazid, disulfid s N-[4-[(2-amino-3,4-dihydro-4-oxo-6-pteridinyI)metýl]amino]benzoyl]-L-gamma-glutamyl-L-alfa-aspartyl-L-arginyl-L-alfa-aspartyl-L-alfa-aspartyl-L-cystein	Léčba karcinomu vaječníků
Danish	Vincaleukoblastin-23-oicacid, O4-deacetyl-2-[(2-mercaptoethoxy)carbonyl]hydrazid, disulfid med N-[4-[(2-amino-3,4-dihydro-4-oxo-6-pteridinyI)methyl]amino]benzoyl]-L-gamma-glutamyl-L-alfa-aspartyl-L-arginyl-L-alfa-aspartyl-L-alfa-aspartyl-L-cystein	Behandling af ovarie cancer
Dutch	Vincaleukoblastine-23-oic zuur, O4-deacetyl-2-[(2-mercaptoethoxy)carbonyl]hydrazide, disulfide met N-[4-[(2-amino-3,4-dihydro-4-oxo-6-pteridinyI)methyl]amino]benzoyl]-L-gamma-glutamyl-L-alfa-aspartyl-L-arginyl-L-alfa-aspartyl-L-alfa-aspartyl-L-cysteïne	Behandeling van ovariumkanker
Estonian	Vinkaleukoblastiin-23-bensoehape, O4-deatsetüül-2-[(2-merkaptoetoksü)karbonüül]hüdrasiid, disulfiid koos N-[4-[(2-amino-3,4-dihüdro-4-okso-6-pteridinüül)metüül]amino]bensoüül]-L-gamma-glutamüül-L-alfa-aspartüül-L-arginüül-L-alfa-aspartüül-L-alfa-aspartüül-L-tsüsteiiniga	Munasarjavähi ravi

¹ At the time of designation

Language	Active ingredient	Indication
Finnish	Vinkaleukoblastiini-23-oic-happo, O4-deasetyyli-2-[(2-merkaptotoksi)karbonyyli]hydratsidi, disulfidi ja N-[4-[(2-amino-3,4-dihydro-4-okso-6-pteridinyyli)metyyli]amino]bentsoyyli]-L-gamma-glutamyyli-L-alfa-aspartyyli-L-arginyyli-L-alfa-aspartyyli-L-alfa-aspartyyli-L-kysteinyyli	Munasarjasyövän hoito
French	Vincalécoblastine-23-acide oïque, O4-diacétyl-2-[(2-mercaptoéthoxy)carbonyl]hydrazide, disulfide avec N-[4-[(2-amino-3,4-dihydro-4-oxo-6-ptéridinyl)méthyl]amino]benzoyl]-L-gamma-glutamyl-L-alfa-aspartyl-L-arginyl-L-alfa-aspartyl-L-alfa-aspartyl-L-cystéine	Traitement du cancer de l'ovaire
German	vincalécoblastin-23-oic acid, O4-deacetyl-2-[(2-mercaptoethoxy)carbonyl]hydrazide, disulfide with N-[4-[(2-amino-3,4-dihydro-4-oxo-6-pteridinyl)methyl]amino]benzoyl]-L-gamma-glutamyl-L-alfa-aspartyl-L-arginyl-L-alfa-aspartyl-L-alfa-aspartyl-L-cysteine	Behandlung des Ovarialkarzinoms
Greek	Βινκαλευκοβλαστίν-23-οϊκό οξύ, O4-αποακετυλ-2-[(2-μερκαπτοεθόξυ)καρβονυλο]υδραζίδιο, δισουλφίδιο με N-[4-[(2-άμινο-3,4-διϋδρο-4-οξο-6-πτεριδινύλο)μεθυλ]αμινο]βενζοΰλ]- L-γ-γλουταμυλο- L -α-ασπαρτυλ- L -αργινυλ- L -α-ασπαρτυλ-L-α-ασπαρτυλ-L κυστεΐνη.	Θεραπεία του καρκίνου των ωοθηκών
Hungarian	Vincalécoblastin-23-oic sav, O4-deacetyl-2-[(2-merkaptó-etóxi)karbonil]hidrazid, diszulfid N-[4-[(2-amino-3,4-dihidro-4-oxo-6-pteridinil)methyl]amino]benzoil]-L-gamma-glutamyl-L-alfa-aszpartil-L-arginil-L-alfa-aspartil-L-alfa-aspartil-L-ciszteinnel	Petefészekrák kezelése
Italian	Vinblastina-23-oic acido, O4-deacetyl-2-[(2-mercaptoetossi)carbonil]idrazide, disolfato N-[4-[(2-amino-3,4-deidro-4-oxo-6-pteridinil)metil]amino]benzoil]-L-gamma-glutamyl-L-alfa-aspartil-L-arginil-L-alfa-aspartil-L-alfa-aspartil-L-cisteina	Trattamento del carcinoma dell'ovaio
Latvian	Vinkaleikoblastīn-23-oicskābe, O4-deacetyl-2-[(2-merkaptotoksi)karbonil]hidrazīds, disulfīds ar N-[4-[(2-amino-3,4-dihidro-4-okso-6-pteridinil)metil]amino]benzoil]-L-gamma-glutamyl-L-alfa-aspartil-L-arginil-L-alfa-aspartil-L-alfa-aspartil-L-cisteīnu	Olnīcu vēža ārstēšanai
Lithuanian	Vinkalėukoblastin-23-oinė rūgštis, O4-deacetyl-2-[(2-merkaptotoksi)karbonil]hidrazidas, disulfidas su N-[4-[(2-amino-3,4-dihidro-4-okso-6-pteridinil)metil]amino]benzoil]-L-gamma-glutamyl-L-alfa-aspartil-L-arginil-L-alfa-aspartil-L-alfa-aspartil-L-cisteinu	Kiaušidžių vėžio gydymas

Language	Active ingredient	Indication
Maltese	Vincaleukoblastin-23-oic acid, O4-deacetyl-2-[(2-mercaptoethoxy)carbonyl]hydrazide, disulfide with N-[4-[(2-amino-3,4-dihydro-4-oxo-6-pteridiny)l)methyl]amino]benzoyl]-L-gamma-glutamyl-L-alfa-aspartyl-L-arginyl-L-alfa-aspartyl-L-alfa-aspartyl-L-cysteine	Kura għal kanċer tal-ovarji
Polish	2-[(2-merkaptotetoksy)karbonylo]hydrazyd kwasu O4-deacetylo-winkaleukoblastyn-23-owego, dwusiarczyk z N-[4-[(2-amino-3,4-dihydro-4-okso-6-pterydynylo)metylo]amino]benzoilo]-L-gamma-glutamyl-L-alfa-aspartyl-L-arginyl-L-alfa-aspartyl-L-alfa-aspartyl-L-cysteina	Leczenie raka jajnika
Portuguese	Ácido vincaleucoblastina-23-óico, O4-deacetil-2-[(2-mercaptoetoxi)carbonil]hidrazida, dissulfureto com N-[4-[(2-amino-3,4-dihidro-4-oxo-6-pteridinil)metilo]amino]benzoilo]-L-gamma-glutamyl-L-alfa-aspartil-L-arginil-L-alfa-aspartil-L-alfa-aspartil-L-cisteína	Tratamento do carcinoma do ovário
Romanian	Acid vincaleucoblastin-23-oic, O4-deacetil-2-[(2-mercaptoetoxi)carbonil]hidrazidă, disulfid cu N-[4-[(2-amino-3,4-dihidro-4-oxo-6-pteridinil)metil]amino]benzoil]-L-gama-glutamyl-L-alfa-aspartil-L-arginil-L-alfa-aspartil-L-alfa-aspartil-L-cisteină	Tratamentul cancerului ovarian
Slovak	Kyselina vinkaleukoblastín-23-ová, O4-deacetyl-2-[(2-merkaptotetoksy)karbonyl]hydrazid, disulfid s N-[4-[(2-amino-3,4-dihydro-4-oxo-6-pteridiny)l)metyl]amino]benzoyl]-L-gama-glutamyl-L-alfa-aspartyl-L-arginyl-L-alfa-aspartyl-L-alfa-aspartyl-L-cysteínom	Liečba rakoviny vaječníkov
Slovenian	Vincaleukoblastin-23-ojska kislina, O4-deacetil-2-[(2-merkaptotetoksi)karbonil]hidrazid, disulfid z N-[4-[(2-amino-3,4-dihidro-4-okso-6-pteridinil)metil]amino]benzoil]-L-gamma-glutamyl-L-alfa-aspartil-L-arginil-L-alfa-aspartil-L-alfa-aspartil-L-cisteinom	Zdravljenje raka na jajčnikih
Spanish	Ácido vincaleucoblastin-23-oico, O4-deacetil-2-[(2-mercaptoetoxi)carbonil]hidrazida, disulfuro con N-[4-[(2-amino-3,4-dihidro-4-oxo-6-pteridinil)metil]amino]benzoíl]-L-gamma-glutamyl-L-alfa-aspartil-L-arginil-L-alfa-aspartil-L-alfa-aspartil-L-cisteína	Tratamiento del cáncer de ovario
Swedish	Vinkaleukoblastin-23-oic syra, O4-deacetyl-2-[(2-merkaptotetoksy)karbonyl]hydrazid, disulfid med N-[4-[(2-amino-3,4-dihydro-4-oxo-6-pteridiny)l)metyl]amino]bensoyl]-L-gamma-glutamyl-L-alfa-aspartyl-L-arginyl-L-alfa-aspartyl-L-alfa-aspartyl-L-cystein	Behandling av ovarialcancer

Language	Active ingredient	Indication
Norwegian	Vincalokoblastin-23-oin acid, O4-deacetyl-2-[(2-mercaptoetoksy)karbonyl]hydrazid, disulfid med N-[4-[(2-amino-3,4-dihydro-4-okso-6-pteridiny)metyl]amino]benzoyl]-L-gamma-glutamyl-L-alfa-aspartyl-L-arginyl-L-alfa-aspartyl-L-alfa-aspartyl-L-cystein	Behandling av eggstokkreft
Icelandic	Vinkaleukóblastín-23-óínsýra, O4-deasetýl-2-[(2-merkaptóetoxý)karbónýl]hýdrasíð, dísulífið með N-[4-[(2-amínó-3,4-díhýdró-4-oxó-6-pteridínýl)metýl]amínó]bensóýl]-L-gamma-glútamýl-L-alfa-aspartýl-L-arginýl-L-alfa-aspartýl-L-alfa-aspartýl-L-systeini	Meðferð eggjastokkakrabbameins