



EUROPEAN MEDICINES AGENCY  
SCIENCE MEDICINES HEALTH

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Committee for Orphan Medicinal Products

## Public summary of opinion on orphan designation

### Ketoconazole for the treatment of granulosa cell tumours

On 20 March 2017, orphan designation (EU/3/17/1857) was granted by the European Commission to Grupo Español de Tumores Huérfanos e Infrecuentes (GETHI), Spain, for ketoconazole for the treatment of granulosa cell tumours.

#### What are granulosa cell tumours?

Granulosa cell tumours are a cancer of the ovaries (female reproductive organs that produce eggs). This type of cancer can also occur in testicles in males. In females, it often increases the production of the hormone oestrogen. Symptoms include stomach pain, increase in stomach size, problems with passing urine, constipation, dizziness, menstrual problems in women and early puberty in girls.

Granulosa cell tumours can occur in adults and children. They are debilitating and life threatening because the cancer can worsen and spread to other parts of the body.

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

At the time of designation, granulosa cell tumours affected approximately 0.2 in 10,000 people in the European Union (EU). This was equivalent to a total of around 10,000 people<sup>\*</sup>, 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 granulosa cell tumours. Treatments included surgery and chemotherapy (medicines to treat cancer). The choice of treatment depended mainly on how advanced the disease was.

The sponsor has provided sufficient information to show that this medicine might be of significant benefit for patients with granulosa cell tumours because early studies showed that combining this medicine with the standard treatment stopped progression of the cancer for a long time in patients

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<sup>\*</sup>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 515,700,000 (Eurostat 2017).



whose disease had come back after all available treatment options. 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?**

Ketoconazole blocks the activity of enzymes involved in the production of oestrogen and other hormones in patients with granulosa cell tumours. By blocking the action of these enzymes, ketoconazole is expected to reduce the symptoms caused by increased hormone levels in the disease. The medicine is available as tablets.

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

The effects of ketoconazole have been evaluated in experimental models.

At the time of submission of the application for orphan designation, a clinical trial with ketoconazole in patients with granulosa cell tumours had been carried out.

At the time of submission, ketoconazole taken by mouth was authorised in the EU for Cushing's syndrome. It was not authorised anywhere in the EU for granulosa cell tumours 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 16 February 2017 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:

Contact details of the current sponsor for this orphan designation can be found on EMA website, on the medicine's [rare disease designations page](#).

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	Ketoconazole	Treatment of granulosa cell tumours
Bulgarian	Кетоконазол	Лечение на гранулозно клетъчен тумор
Croatian	Ketokonazol	Liječenje tumora stanica granuloze
Czech	Ketoconazol	Léčba nádoru z buněk granulozy
Danish	Ketoconazol	Behandling af granulosa celletumorer
Dutch	Ketoconazole	Behandeling van granulieuze celtumoren
Estonian	Ketokonasool	Granuloosrakk-kasvaja ravi
Finnish	Ketokonatsoli	Granuloosasolukasvaimen hoito
French	Kétoconazole	Traitement des tumeurs à cellules granuleuses
German	Ketoconazol	Behandlung des Granulosazelltumors
Greek	Κετοκοναζόλη	Θεραπεία των κοκκιοκυτταρικών όγκων ωοθηκών
Hungarian	Ketokonazol	Granulosa sejt daganatok kezelése
Italian	Ketoconazolo	Trattamento del tumore a cellule della granulosa
Latvian	Ketokonazols	Granulozo šūnu audzēju ārstēšana
Lithuanian	Ketokonazolas	Granuliozinių ląstelių naviko gydymas
Maltese	Ketoconazole	Trattament ta' tumuri taċ-ċelloli granulosa
Polish	Ketokonazol	Leczenie nowotworów z komórek warstwy ziarnistej
Portuguese	Cetoconazol	Tratamento do Tumor de células da Granulosa
Romanian	Ketoconazol	Tratamentul tumorilor cu celule granulose
Slovak	Ketokonazol	Liečba nádoru Granulosa bunky
Slovenian	Ketokonazol	Zdravljenje tumorja granuloznih celic
Spanish	Ketoconazol	Tratamiento de Tumor de células de la granulosa
Swedish	Ketokonazol	Behandling av granulosaacetumör
Norwegian	Ketokonazol	Behandling av granulosaacetumorer
Icelandic	Ketókónazól	Meðferð á granúlósa frumu æxli

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