



EUROPEAN MEDICINES AGENCY  
SCIENCE MEDICINES HEALTH

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## Jinarc (*tolvaptan*)

An overview of Jinarc and why it is authorised in the EU

### What is Jinarc and what is it used for?

Jinarc is a medicine used to treat adults with autosomal dominant polycystic kidney disease. This is an inherited condition in which numerous fluid-filled cysts develop in the kidneys, which eventually reduce kidney function and can cause the kidneys to fail. Jinarc can be started in patients with normal to severely reduced kidney function and whose disease is progressing rapidly.

Jinarc contains the active substance tolvaptan.

### How is Jinarc used?

Jinarc can only be obtained with a prescription and treatment must be started and monitored by a doctor experienced in treating autosomal dominant polycystic kidney disease and with knowledge about the risks of treatment with Jinarc.

Jinarc is available as tablets (15, 30, 45, 60 and 90 mg). Patients should be started with a dose of 45 mg in the morning and 15 mg in the evening (45+15 mg), and the dose should then be increased to 60+30 mg or 90+30 mg, depending on the medicine's side effects. The morning dose should be taken at least 30 minutes before the morning meal, whereas the evening dose can be taken with or without food. Doses may need to be reduced in patients taking certain other medicines. Patients should drink plenty of water or other fluids (except grapefruit juice) while on treatment.

For more information about using Jinarc, see the package leaflet or contact your doctor or pharmacist.

### How does Jinarc work?

The active substance in Jinarc, tolvaptan, is a vasopressin-2-receptor antagonist: it blocks receptors (targets) in the kidneys for the hormone vasopressin. Vasopressin controls the amount of water and sodium that the kidneys remove. In autosomal dominant polycystic kidney disease, it is thought that kidney cells do not respond normally to vasopressin, leading to the formation of fluid-filled cysts. By blocking vasopressin receptors in the kidneys, Jinarc can slow down cyst formation.



## **What benefits of Jinarc have been shown in studies?**

Jinarc was shown to be effective at slowing down cyst formation when compared with placebo (a dummy treatment) in two main studies involving adults with autosomal dominant polycystic kidney disease who had rapidly progressing disease.

The first study included 1,445 patients with normal or moderately reduced kidney function, and measured the change in kidney size after 3 years of treatment. Kidney size increases with disease severity due to swelling caused by cyst formation. In patients taking placebo, the total size of the kidneys increased by 19% whereas in those taking Jinarc the increase was 10%. The effects of treatment were greatest in the first year. Subsequent supportive results confirmed that increase in kidney size over 5 years was slower with Jinarc.

The second study included 1,370 patients with moderately to severely reduced kidney function. Results showed that in patients treated with Jinarc the decline in kidney function was 35% less than with placebo after 1 year of treatment. In 262 patients with severely reduced kidney function, the decline in kidney function was 17% less with Jinarc after 1 year of treatment compared with placebo.

## **What are the risks associated with Jinarc?**

The most common side effects with Jinarc (which may affect more than 2 in 10 people) are thirst, polyuria (increase in urine production), nocturia (need to pass urine at night) and pollakiuria (increased need to pass urine during the day). Jinarc may increase blood levels of certain liver enzymes (a sign of possible liver problems). For the full list of side effects reported with Jinarc, see the package leaflet.

Jinarc must not be started in certain patients with increased blood levels of liver enzymes or with signs or symptoms of liver injury. Blood tests to check the patient's liver function should be performed before starting treatment with Jinarc, and then repeated every month for 18 months and every three months thereafter. Patients should also be monitored for symptoms of liver injury (such as loss of appetite, nausea and vomiting, itching, tiredness and pain in the upper-right side of the belly) during treatment. Jinarc must not be used in patients who are anuric (cannot pass urine or have difficulty in passing it), volume depleted (have reduced amounts of fluids in the body) and in patients who cannot perceive or respond to thirst. It must not be used in patients with hypernatraemia (increased sodium levels in the blood) and in patients who are allergic to tolvaptan or medicines that are similar to tolvaptan, so-called benzazepines or their derivatives. Jinarc must also not be used in pregnant and breastfeeding women. For the full list of restrictions, see the package leaflet.

## **Why is Jinarc authorised in the EU?**

The European Medicines Agency decided that Jinarc's benefits are greater than its risks and that it can be authorised for use in the EU. The Agency noted the unmet need for treatments for autosomal dominant polycystic kidney disease and considered that Jinarc is effective at slowing down cyst formation and the decline in kidney function in patients with the condition. While the most common side effects are manageable, the Agency identified liver toxicity as the most important risk with Jinarc, which was addressed by putting in place several measures (see below).

## **What measures are being taken to ensure the safe and effective use of Jinarc?**

The company that markets Jinarc will provide patients and doctors expected to use the medicine with information on the risk of liver toxicity and on the importance of preventing pregnancy during

treatment. The company will also carry out a study to further investigate the safety of the medicine, including the risk of liver toxicity.

Recommendations and precautions to be followed by healthcare professionals and patients for the safe and effective use of Jinarc have also been included in the summary of product characteristics and the package leaflet.

As for all medicines, data on the use of Jinarc are continuously monitored. Side effects reported with Jinarc are carefully evaluated and any necessary action taken to protect patients.

### **Other information about Jinarc**

Jinarc received a marketing authorisation valid throughout the EU on 27 May 2015.

Further information can be found on the Agency's website: [ema.europa.eu/Find\\_medicine/Human\\_medicines/European\\_public\\_assessment\\_reports](http://ema.europa.eu/Find_medicine/Human_medicines/European_public_assessment_reports).

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