



EUROPEAN MEDICINES AGENCY  
SCIENCE MEDICINES HEALTH

EMA/2585/2018  
EMA/H/C/004275

## EPAR summary for the public

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# Crysvita

## burosumab

This is a summary of the European public assessment report (EPAR) for Crysvita. It explains how the Agency assessed the medicine to recommend its authorisation in the EU and its conditions of use. It is not intended to provide practical advice on how to use Crysvita.

For practical information about using Crysvita, patients should read the package leaflet or contact their doctor or pharmacist.

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

Crysvita is a medicine used for the treatment of X-linked hypophosphataemia, a hereditary disorder characterised by low levels of phosphate in the blood (hypophosphataemia). Phosphate is essential to build bones and teeth and to maintain their strength, so patients may develop rickets and other bone deformities and growth problems.

Crysvita can be used in children over 1 year of age and adolescents with growing skeletons. It is used if signs of bone disease are seen on X-rays.

Crysvita contains the active substance burosumab.

Because the number of patients with X-linked hypophosphataemia is low, the disease is considered 'rare', and Crysvita was designated an 'orphan medicine' (a medicine used in rare diseases) on 15 October 2014.

### How is Crysvita used?

The medicine can only be obtained with a prescription and treatment should be started by a doctor experienced in the management of patients with bone diseases caused by alterations in the body's chemical processes.



Crysvita is given as an injection under the skin. The recommended dose at the start of treatment is 0.4 mg per kg of body weight, and then 0.8 mg/kg every two weeks to continue treatment. The dose is adjusted according to the patient's phosphate levels in the blood. The maximum dose is 90 mg every two weeks.

For further information, see the package leaflet.

## **How does Crysvita work?**

Phosphate levels are largely controlled by the kidneys, which either remove excess phosphate or reabsorb it into the bloodstream when needed. Patients with X-linked hypophosphataemia have abnormally high levels of a protein called FGF23 which causes the kidneys to stop reabsorbing phosphate into the bloodstream.

Crysvita is a monoclonal antibody (a type of protein) designed to recognise and attach to the FGF23 protein. By attaching to the FGF23 protein, the medicine blocks its activity, allowing the kidneys to reabsorb phosphate and restore normal levels of phosphate in the blood.

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

Crysvita reduced the severity of rickets as shown in X-rays in children with X-linked hypophosphataemia.

The medicine was assessed in one main ongoing study in 52 children aged between 5 and 12 years. All the children received Crysvita either every two weeks or every four weeks. The main measure of effectiveness was a reduction in the severity of rickets (bone deformities) in the wrist and knee measured on a scale from 0 (normal) to 10 (severe). The average score before treatment was 1.9 points in those given Crysvita every 2 weeks, and this fell by 1.0 point after 64 weeks of treatment; in those given the medicine every 4 weeks the baseline score of 1.7 fell by 0.8 point. In addition, phosphate levels in the blood improved over time in both groups, particularly those given Crysvita every 2 weeks.

An additional ongoing study in 13 younger children shows that Crysvita is effective in those aged between 1 and 4 years.

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

Side effects with Crysvita (which may affect more than 1 in 10 people) are injection site reactions (such as skin redness, itching, rash, pain and bruising), headache, pain in arms and legs, decreased vitamin D level, rash, toothache, tooth abscess, muscle pain and dizziness.

Oral phosphate and vitamin D medicines must not be used during treatment with Crysvita. Also, Crysvita must not be used in patients with high phosphate levels in the blood or in patients with severe kidney disease.

For the full list of restrictions with Crysvita see the package leaflet.

## **Why is Crysvita approved?**

Crysvita was shown to reduce the severity of bone deformities in the wrist and knee and improve the level of phosphate in the blood of children with X-linked hypophosphataemia in one ongoing study, and further data are awaited. Its side effects seem manageable. The European Medicines Agency therefore decided that Crysvita's benefits are greater than its risks and recommended that it be approved for use in the EU.

Crysvita has been given 'conditional approval'. This means that there is more evidence to come about the medicine, which the company is required to provide. Every year, the European Medicines Agency will review any new information that becomes available and this summary will be updated as necessary.

### **What information is still awaited for Crysvita?**

Since Crysvita has been granted a conditional approval, the company that markets Crysvita will provide updated results from two ongoing studies in children aged between 5 and 12 years and between 1 and 4 years. The company is also required to conduct and submit the results of a study comparing Crysvita with oral phosphate and vitamin D in children aged between 1 and 12 years with X-linked hypophosphataemia.

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

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

### **Other information about Crysvita**

The European Commission granted a conditional marketing authorisation valid throughout the European Union for Crysvita on 19 February 2018.

The full EPAR for Crysvita 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). For more information about treatment with Crysvita, read the package leaflet (also part of the EPAR) or contact your doctor or pharmacist.

The summary of the opinion of the Committee for Orphan Medicinal Products for Crysvita can be found on the Agency's website: [ema.europa.eu/Find\\_medicine/Human\\_medicines/Rare\\_disease\\_designation](http://ema.europa.eu/Find_medicine/Human_medicines/Rare_disease_designation).

This summary was last updated in 03-2018.