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EPAR summary for the public

Opgenra

eptotermin alfa

This is a summary of the European public assessment report (EPAR) for Opgenra. It explains how the Committee for Medicinal Products for Human Use (CHMP) assessed the medicine to reach its opinion in favour of granting a marketing authorisation and its recommendations on the conditions of use for Opgenra.

What is Opgenra?

Opgenra is a medicine that contains the active substance eptotermin alfa. It is supplied as two vials, one containing eptotermin alfa and another containing a substance called carmellose. The two powders are made up into a 'suspension' (a liquid with solid particles in it) with a putty-like consistency, which is implanted in the body.

What is Opgenra used for?

Opgenra is used in adults with spondylolisthesis. This is a condition where one lumbar vertebra (one of the bones in the lower part of the spine) has slipped forward so that it is not in line with the vertebra below it. This can cause pain, instability, and problems due to pressure on the nerves, including tingling, numbness, weakness and difficulty controlling certain muscles. Spondylolisthesis can be treated using surgery to fuse (join) the vertebrae above and below the site where the slip occurred.

Opgenra is used only in patients who have previously had surgery using an autograft (a bone graft taken from their own body, usually the hip) that has failed or when an autograft must not be carried out.

The medicine can only be obtained with a prescription.

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How is Opgenra used?

Opgenra is only used by a surgeon who is appropriately qualified. During an operation, the surgeon applies Opgenra directly along each side of the two vertebrae to help new bone develop and to make the vertebrae fuse together.

How does Opgenra work?

The active substance in Opgenra, eptotermin alfa, acts on the bone. It is a copy of a protein called osteogenic protein 1, also known as bone morphogenic protein 7 (BMP-7), which is produced naturally by the body and helps the formation of new bone tissue. When implanted, eptotermin alfa stimulates the formation of new bone. This helps to fuse the two vertebrae in patients having surgery for spondylolisthesis.

Eptotermin alfa is produced by a method known as 'recombinant DNA technology': it is made by cells that have received a gene (DNA), which makes them able to produce eptotermin alfa. The replacement eptotermin alfa acts in the same way as naturally produced BMP-7.

Eptotermin alfa has been authorised in the European Union (EU) since May 2001 in Osigraft. Osigraft is used to repair fractures (breaks) of the tibia (shin bone).

How has Opgenra been studied?

The effects of Opgenra were first tested in experimental models before being studied in humans. The company also used some of the data used to support the authorisation of Osigraft.

Opgenra has been studied in one main study involving 336 patients who needed spinal fusion surgery for spondylolisthesis. All of the patients were eligible for an autograft. The study compared surgery using Opgenra and surgery using bone autografts. The main measure of effectiveness was the number of patients whose treatment was successful after two years. Treatment was defined as 'successful' when bone could be seen between the affected vertebrae on X-rays, and the patient had shown improvement in disability, with no need for further treatment of the spine, no serious side effects and no worsening of the symptoms caused by pressure on the nerves.

The company also presented evidence from the published scientific literature on patients treated in the United States of America (USA), where the medicine has been approved as a medical device for spine fusion since 2004.

What benefit has Opgenra shown during the studies?

In the main study, Opgenra was not as effective as autograft in patients who were eligible for an autograft. After two years, treatment with Opgenra was successful in 39% of the patients, compared with 49% with autograft.

Despite the lower effectiveness, there was sufficient evidence from the study and from the published literature to support the use of Opgenra in patients in whom autograft has failed or who must not undergo the procedure. In addition, Opgenra had advantages over autograft, including shorter operations, less blood loss and less pain.

What is the risk associated with Opgenra?

The most common side effects with Opgenra (seen in between 1 and 10 patients in 100) are heterotopic bone formation (bone formation outside the fusion area) and pseudoarthrosis (failure of

the spine to fuse). In addition, some side effects are seen in between 1 and 10 patients in 100 following spine surgery itself, including infection after the operation, wound dehiscence (opening of the wound), secretion (seepage) and erythema (redness of the skin). For the full list of all side effects reported with Opgenra, see the package leaflet.

Opgenra should not be used in people who may be hypersensitive to eptotermin alfa or any of the other ingredients. It must not be used in the following groups:

- patients with an auto-immune disease (a disease caused by the body's own defence system attacking normal tissue);
- patients who have an active infection at the operation site or have had repeated infections;
- patients who do not have adequate skin covering or blood supply at the operation site;
- patients who have received a medicine containing BMP in the past;
- patients with cancer or being treated for cancer;
- patients whose bones are still growing such as children and adolescents.

Why has Opgenra been approved?

The CHMP decided that Opgenra's benefits are greater than its risks for posterolateral lumbar spinal fusion in adult patients with spondylolisthesis where autograft has failed or is contra-indicated. The Committee recommended that Opgenra be given marketing authorisation.

What measures are being taken to ensure the safe use of Opgenra?

The company that makes Opgenra will provide educational packs and training DVDs for surgeons in each Member State. These will include information on Opgenra's safety and remind them of how to prepare and use the medicine in an operation. The company will also submit plans for long-term studies to the CHMP. These studies will look at the medicine's safety and effectiveness, and how it is used in real life.

Other information about Opgenra

The European Commission granted a marketing authorisation valid throughout the European Union for Opgenra on 19 February 2009.

The full EPAR for Opgenra can be found on the Agency's website: ema.europa.eu/Find medicine/Human medicines/European Public Assessment Reports. For more information about treatment with Opgenra, read the package leaflet (also part of the EPAR) or contact your doctor or pharmacist.

This summary was last updated in 06-2011.