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EPAR summary for the public

Provenge

autologous peripheral blood mononuclear cells activated with PAP-GM-CSF (sipuleucel-T)

This is a summary of the European public assessment report (EPAR) for Provenge. 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 Provenge.

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

What is Provenge and what is it used for?

Provenge is a cancer medicine that is prepared specifically for each patient using their own immune cells (cells that form part of the body's natural defences). Provenge is used to treat adult men with cancer of the prostate (a gland of the male reproductive system) who have few or no symptoms. It is used when the cancer is metastatic (has spread to other parts of the body), and when medical or surgical castration (stopping the production of male hormones) has not worked or no longer works but treatment with chemotherapy (medicines that kill fast-growing cells like cancer cells) is not yet considered appropriate. This type of prostate cancer is called castration-resistant matastatic prostate cancer.

Provenge is a type of advanced therapy medicine called a 'somatic cell therapy product'. This is a type of medicine containing cells or tissues that have been manipulated so that they can be used to cure, diagnose or prevent a disease.

How is Provenge used?

Provenge can only be obtained with a prescription. It must be given under the supervision of a doctor experienced in the treatment of prostate cancer and in an environment where resuscitation equipment is available.

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Provenge is available as a liquid dispersion for infusion (drip) into a vein. Three days before the infusion, a procedure called leukapheresis is performed to collect immune cells from the patient's blood, and these are then sent to a manufacturing facility to prepare the medicine. Once prepared, the medicine is given as an infusion lasting around 1 hour. The leukapheresis and infusion are repeated on two further occasions, each approximately 2 weeks apart. Around half an hour before each infusion, the patient should take paracetamol and an antihistamine to reduce infusion-related reactions with Provenge. The patient should be monitored for at least half an hour after the infusion. For further information, see the package leaflet.

How does Provenge work?

Provenge is an immunotherapy, a medicine that stimulates the immune system to kill cancer cells. It contains immune cells that are extracted from the patient's blood. These cells are then mixed outside the patient's body with a 'fusion protein', which is taken up by the cells. The fusion protein consists of prostatic acid phosphatase (PAP), a molecule found in most prostate cancer cells, attached to granulocyte-macrophage colony-stimulating factor (GM-CSF), a molecule that activates immune cells. When the immune cells are infused back into the patient, they stimulate an immune response against PAP, resulting in the immune system attacking and killing prostate cancer cells because they contain PAP.

What benefits of Provenge have been shown in studies?

Provenge was shown to improve overall survival (the average length of time the patients lived) of patients with castration-resistant metastatic prostate cancer, compared with placebo (a dummy treatment). In a main study involving 512 patients, the average overall survival for patients treated with Provenge was 25.8 months, compared with 21.7 months for patients given placebo.

What are the risks associated with Provenge?

The most common side effects with Provenge (which may affect more than 1 in 10 people) include chills, fatigue (tiredness), pyrexia (fever), nausea (feeling sick), arthralgia (joint pain), headache and vomiting. Serious side effects with Provenge include severe acute infusion reactions, severe infection (catheter sepsis and staphylococcal bacteraemia), heart attack and cerebrovascular events (related to the blood supply to the brain). For the full list of all side effects reported with Provenge, see the package leaflet.

Why is Provenge approved?

The Agency's Committee for Medicinal Products for Human Use (CHMP) decided that Provenge's benefits are greater than its risks and recommended that it be approved for use in the EU. The CHMP concluded that the improvement in overall survival seen with Provenge is important for patients. Regarding its safety, the CHMP noted that Provenge was generally well tolerated. The main risks included acute infusion reactions, toxicities associated with the leukapheresis procedure and infections, but the CHMP considered that these were manageable and adequately addressed by risk minimisation measures for this medicine.

What measures are being taken to ensure the safe and effective use of Provenge?

A risk management plan has been developed to ensure that Provenge is used as safely as possible. Based on this plan, safety information has been included in the summary of product characteristics and

the package leaflet for Provenge, including the appropriate precautions to be followed by healthcare professionals and patients.

In addition, the company that markets Provenge will provide educational materials for doctors and patients on how to use the medicine and the leukapheresis procedure. It will also supply cards for patients to record the scheduled leukapheresis and infusion dates. The company will also set up an EU-based registry of patients treated with Provenge in order to monitor overall survival and side effects reported (particularly stroke and heart attack), and will provide data from a US-based registry. Further studies will also be carried out to provide additional supportive data on the effectiveness of Provenge.

Other information about Provenge

The European Commission granted a marketing authorisation valid throughout the European Union for Provenge on 6 September 2013.

The full EPAR for Provenge 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 Provenge, read the package leaflet (also part of the EPAR) or contact your doctor or pharmacist.

This summary was last updated in 09-2013.