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Pepaxti (melphalan flufenamide)

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

What is Pepaxti and what is it used for?

Pepaxti is a medicine used to treat adults with multiple myeloma (a cancer of the bone marrow) when the cancer has not responded to previous treatments (refractory).

It is used in combination with dexamethasone (an anti-inflammatory medicine) in adults who have received at least three prior therapies, including an immunomodulatory agent, a proteasome inhibitor and an anti-CD38 antibody, and whose disease has worsened since the last treatment.

For patients who have had an autologous stem cell transplantation (a procedure where the patient's bone marrow is cleared of cells and replaced by stem cells from the patients themselves), Pepaxti can be used if the time from transplantation to when the cancer comes back is at least three years.

Multiple myeloma is rare, and Pepaxti was designated an 'orphan medicine' (a medicine used in rare diseases) on 19 March 2015. Further information on the orphan designation can be found here: https://www.ema.europa.eu/en/medicines/human/orphan-designations/eu-3-15-1463

Pepaxti contains the active substance melphalan flufenamide.

How is Pepaxti used?

The medicine can only be obtained with a prescription. Treatment with Pepaxti must be started and supervised by doctors experienced in the treatment of multiple myeloma.

It is given by infusion (drip) into a vein over 30 minutes on day 1 of a 28-day cycle, and the dose depends on body weight. The doctor may reduce or stop the dose if the patient develops certain side effects. Treatment should continue until the patient no longer benefits from it, or the side effects become unacceptable.

The recommended dose of dexamethasone given in combination with Pepaxti is 40 mg by mouth on days 1, 8, 15 and 22 of each 28-day treatment cycle. For patients 75 years of age and older the recommended dose of dexamethasone is 20 mg.

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

Official address Domenico Scarlattilaan 6 ● 1083 HS Amsterdam ● The Netherlands
Address for visits and deliveries Refer to www.ema.europa.eu/how-to-find-us
Send us a question Go to www.ema.europa.eu/contact **Telephone** +31 (0)88 781 6000 An agency of the European Union

How does Pepaxti work?

Melphalan flufenamide, the active substance in this medicine, is a type of cancer medicine known as an alkylating agent. It interferes with the normal function and repair of DNA, the genetic instructions that cells need to function and multiply. Because cancer cells tend to grow and multiply more than normal cells they are more vulnerable to the action of the medicine. By damaging the DNA of cancer cells, melphalan flufenamide can help kill them and prevent the cancer from growing and spreading.

What benefits of Pepaxti have been shown in studies?

Pepaxti taken together with dexamethasone was shown to be effective at clearing the cancer in one main study involving 157 patients with multiple myeloma whose disease stopped responding and had come back after three previous therapies. Clinically relevant results were shown for the 52 patients who have either not had a transplant or who had a transplant and whose disease progressed more than 3 years after. For those patients, around 29% had a response (which means a reduction in the signs of the cancer) with Pepaxti and dexamethasone lasting around 7.6 months.

In an additional study comparing Pepaxti and dexamethasone with pomalidomide (another cancer medicine) and dexamethasone, a beneficial effect was also seen for patients who had no prior transplantation or had a transplant and whose disease progressed more than 3 years after: Patients receiving Pepaxti and dexamethasone lived for an average of 9.3 months without their disease getting worse, compared with 4.6 months for patients receiving pomalidomide and dexamethasone. Patients also lived overall with 23.6 months on Pepaxti and dexamethasone and 19.8 months with pomalidomide and dexamethasone.

What are the risks associated with Pepaxti?

The most common side effects with Pepaxti (which may affect more than 1 in 10 people) are thrombocytopenia (low blood platelet counts), neutropenia (low levels of neutrophils, a type of white blood cell), anaemia (low red blood cell counts), nausea, diarrhoea and fever. The most frequent serious side effects are pneumonia (infection of the lungs), thrombocytopenia and respiratory tract infection (infection of the airways).

Pepaxti must not be used during breastfeeding.

For the full list of side effects and restrictions with Pepaxti, see the package leaflet.

Why is Pepaxti authorised in the EU?

The European Medicines Agency decided that Pepaxti's benefits are greater than its risks and it can be authorised for use in the EU. The Agency noted the unmet medical need for patients with multiple myeloma who no longer improve with the available therapies. Despite some limitations in the studies, the results were considered clinically relevant, with the exception of the subgroup of patients who had an autologous stem cell transplant and whose disease progressed within three years of transplantation.

Regarding safety, although side effects, including severe effects, were seen with treatment involving Pepaxti, these were considered acceptable and manageable.

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

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

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

Other information about Pepaxti

Pepaxti received a marketing authorisation valid throughout the EU on 17 August 2022.

Further information on Pepaxti can be found on the Agency's website: ema.europa.eu/medicines/human/EPAR/pepaxti

This overview was last updated in 08-2022.