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EPAR summary for the public

Glybera

alipogene tiparvovec

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

What is Glybera?

Glybera is a medicine that contains the active substance alipogene tiparvovec. It is available as a solution for injection.

Glybera is a type of advanced therapy medicine called a 'gene therapy product'. This is a type of medicine that works by delivering genes into the body.

What is Glybera used for?

Glybera is used to treat adults with lipoprotein lipase deficiency who have severe or multiple attacks of pancreatitis (inflammation of the pancreas) despite maintaining a low-fat diet.

Lipoprotein lipase deficiency is a rare disease in which patients have a defect in the gene for lipoprotein lipase, an enzyme responsible for breaking down fats. Patients with this disease need to be on a strict low-fat diet and are prone to recurring attacks of pancreatitis, which is a severe and life-threatening complication.

Glybera is only for patients whose disease has been confirmed by appropriate genetic testing and who have detectable levels of the lipoprotein lipase enzyme in their blood.

Because the number of patients with lipoprotein lipase deficiency is low, the disease is considered 'rare', and Glybera was designated an 'orphan medicine' (a medicine used in rare diseases) on 8 March 2004.

The medicine can only be obtained with a prescription.

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How is Glybera used?

Glybera should only be prescribed and given under the supervision of a doctor with expertise in treating lipoprotein lipase deficiency and in gene therapy.

Glybera is given as a single treatment involving multiple injections into the muscles of the upper and lower legs. The amount of the medicine to inject and the number of injections depend on the patient's weight. For more information on the dose of Glybera to be given, see the summary of product characteristics (also part of the EPAR).

For three days before Glybera treatment and for twelve weeks after, patients are given immunosuppressive treatment to reduce the reaction of the body's immune system against the medicine. Due to the multiple injections required, it is advisable to give it with a spinal or regional anaesthetic (medicines which numb certain parts of the body to block pain).

How does Glybera work?

The active substance in Glybera, alipogene tiparvovec, is derived from a virus that has been modified so it can carry the lipoprotein lipase gene into the body's cells. When injected into the muscles, it corrects the lipoprotein lipase deficiency by enabling the muscle cells to produce the enzyme. The enzyme produced by these cells can then help to break down fats in the blood, reducing the number of pancreatitis attacks and the severity of the disease.

The modified viral material used in Glybera does not cause infections and cannot make copies of itself.

How has Glybera been studied?

Glybera has been studied in 27 patients with lipoprotein lipase deficiency on a low-fat diet. The majority of patients who received Glybera also received immunosuppressive treatment. The main measures of effectiveness were the reduction in blood fat levels after meals and the reduction in the number of pancreatitis attacks.

What benefit has Glybera shown during the studies?

The data showed a reduction in blood fat levels after meals in some patients. There was also a reduction in the number of pancreatitis attacks in some patients, as well as fewer hospital admissions and stays in intensive care units. Although there were data for only a small number of patients, the results indicate that Glybera would be of benefit to those patients with severe or multiple pancreatitis attacks.

What is the risk associated with Glybera?

The most common side effect reported with Glybera was pain in the legs following the injections, which occurred in a third of patients. Other common side effects reported include headache, tiredness, hyperthermia (high body temperature), contusion (bruising) and increased levels of the enzyme creatine kinase in the blood (a measure of damage to muscle tissue). One patient was diagnosed with pulmonary embolism (clots in blood vessels supplying the lungs) seven weeks after treatment. Given the small number of patients treated, these side effects do not provide a complete picture of the frequency and nature of the side effects of Glybera. For the full list of all side effects reported with Glybera, see the package leaflet.

Glybera must not be used in patients with immunodeficiency (weakened immunity), increased risk of bleeding and muscle disease. Anticoagulant medicines, which can increase bleeding, must not be used from the week before Glybera treatment to one day after. Patients must also not use oral contraceptives. For the full list of restrictions, see the package leaflet.

Why has Glybera been approved?

After careful consideration of all the evidence and the circumstances of the disease, including its extreme rarity, the CHMP concluded that the results from studies showed that the benefits of Glybera outweigh its risks in patients with severe or multiple pancreatitis attacks despite following a low-fat diet. This is a subgroup of severely affected patients with a high unmet medical need. The CHMP therefore recommended that the medicine be granted marketing authorisation.

Glybera has been authorised under 'exceptional circumstances' as it has not been possible to obtain complete information about the medicine, because of the rarity of the disease. 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 Glybera?

Under the terms of the authorisation, the company is required to provide further data on fat levels in the blood after meals and on the immune response to Glybera in new patients. The company will also provide data from a registry to monitor the outcome of patients treated with Glybera, and will add a step to the manufacturing of the product to improve the safety profile.

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

A risk management plan has been developed to ensure that Glybera 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 Glybera, including the appropriate precautions to be followed by healthcare professionals and patients.

In addition, the company has put in place a restricted access programme to ensure that Glybera is used appropriately when the diagnosis is confirmed. The medicine will only be supplied to doctors who have received the appropriate educational materials and will only be used to treat patients participating in the registry. The company will also provide patients and healthcare professionals with educational materials, including information on how to administer Glybera and how to manage risks with the medicine. Patients will also be provided with a patient alert card.

Other information about Glybera

The European Commission granted a marketing authorisation valid throughout the European Union for Glybera on 25 October 2012.

The full EPAR for Glybera 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 Glybera, 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 Glybera can be found on the Agency's website: ema.europa.eu/Find medicine/Human medicines/Rare disease designation.

This summary was last updated in 10-2015.