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Withdrawal of application for the marketing authorisation of Fingolimod Mylan (fingolimod)

Mylan Ireland Limited withdrew its application for a marketing authorisation of Fingolimod Mylan for the treatment of multiple sclerosis.

The company withdrew the application on 8 May 2020.

What is Fingolimod Mylan and what was it intended to be used for?

Fingolimod Mylan was developed as a medicine for treating adults and children over 10 years of age with highly active relapsing-remitting multiple sclerosis, a disease of the nerves in which inflammation destroys the protective sheath surrounding the nerves and damages the nerves themselves.

'Relapsing-remitting' means that the patient has flare-ups of symptoms (relapses) followed by periods of stable symptoms (remissions). Fingolimod Mylan was to be used when the disease remains active despite appropriate treatment with at least one other disease-modifying therapy or is severe and getting worse rapidly.

Fingolimod Mylan contains the active substance fingolimod and was to be available as capsules to take by mouth.

Fingolimod Mylan was developed as a 'generic medicine'. This means that Fingolimod Mylan contained the same active substance as an authorised 'reference medicine' Gilenya and was intended to work in the same way. For more information on generic medicines, see the question-and-answer document here.

How does Fingolimod Mylan work?

In multiple sclerosis, the immune system (the body's defences) incorrectly attacks the protective sheath around the nerves in the brain and spinal cord. The active substance in Fingolimod Mylan, fingolimod, prevents T cells (a type of white blood cell involved in the immune system) travelling from the lymph nodes towards the brain and spinal cord, thus limiting the damage they cause in multiple sclerosis. It does this by blocking the action of a receptor (target) on the T cells called the sphingosine-1- phosphate receptor, which is involved in controlling the movement of these cells in the body.

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What did the company present to support its application?

Studies on the benefits and risks of the active substance are not needed for a generic medicine because they have already been carried out with the reference medicine. As for every medicine, the company provided studies on the quality of Fingolimod Mylan. It also provided studies to investigate whether Fingolimod Mylan is 'bioequivalent' to the reference medicine Gilenya. Two medicines are bioequivalent when they produce the same levels of the active substance in the body and are therefore expected to have the same effect.

How far into the evaluation was the application when it was withdrawn?

The application was withdrawn after the European Medicines Agency had evaluated the information from the company and prepared questions for the company. After the Agency had assessed the company's responses to the last round of questions, there were still some unresolved issues.

What did the Agency recommend at that time?

Based on the review of the data and the company's response to the Agency's questions, at the time of the withdrawal, the Agency had some concerns and its provisional opinion was that Fingolimod Mylan could not have been authorised for the treatment of highly active relapsing remitting multiple sclerosis.

The Agency was concerned that results from the bioequivalence study were not reliable. The time between giving Fingolimod Mylan and Gilenya in turn to the volunteers was not long enough and some of the active substance from the first medicine may have remained in the body before the next one was given. Moreover, the method for measuring the medicine in the blood was not sensitive enough. The Agency's opinion was that the studies presented did not provide enough evidence on bioequivalence to the reference medicine and Fingolimod Mylan could not be considered a generic medicine of Gilenya.

In addition, the company had not taken sufficient precautions to prevent potentially harmful impurities called nitrosamines from forming during the manufacture of the active substance.

Therefore, at the time of the withdrawal, the Agency's opinion was that the benefits of Fingolimod Mylan did not outweigh its risks.

What were the reasons given by the company for withdrawing the application?

In its letter notifying the Agency of the withdrawal of the application, the company stated that the data provided did not allow conclusions to be drawn on the bioequivalence of the product and an additional bioequivalence study is required.

Does this withdrawal affect patients in clinical trials?

The company informed the Agency that there are no consequences for patients in clinical trials using Fingolimod Mylan.

If you are in a clinical trial and need more information about your treatment, speak with your clinical trial doctor.