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Withdrawal of application for the marketing authorisation of Zefylti (filgrastim)

CuraTeQ Biologics s.r.o withdrew its application for a marketing authorisation of Zefylti, a medicine intended to stimulate the production of white blood cells, making patients less vulnerable to infection, and to prepare patients for blood stem cell transplantation.

The company withdrew the application on 8 June 2023.

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

Zefylti was developed as a medicine intended to stimulate the production of white blood cells in order to:

- reduce the duration of neutropenia (low levels of neutrophils, a type of white blood cell) and the occurrence of febrile neutropenia (neutropenia with fever) in patients receiving cytotoxic chemotherapy (medicines to treat cancer by killing cells);
- reduce the duration of neutropenia in patients undergoing treatment to destroy the bone marrow cells before a bone marrow transplant (such as in some patients with leukaemia) if they are at risk of long-term, severe neutropenia;
- help release cells from the bone marrow in patients who are about to donate blood stem cells for transplant;
- increase levels of neutrophils and reduce the risk of infections in patients with neutropenia who have a history of severe, repeated infections;
- treat persistent neutropenia in patients with advanced human-immunodeficiency-virus (HIV) infection, to reduce the risk of bacterial infections when other treatments are not appropriate.

Zefylti contains the active substance filgrastim and was to be available as a solution for injection or infusion (drip) in pre-filled syringes.

Zefylti was developed as a 'biosimilar' medicine. This means that Zefylti was intended to be highly similar to another biological medicine already authorised in the EU (the 'reference medicine'). The reference medicine for Zefylti is Neupogen. For more information on biosimilar medicines, see here.

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How does Zefylti work?

The active substance in Zefylti and Neupogen, filgrastim, is very similar to a human protein called granulocyte colony stimulating factor (G-CSF). Filgrastim acts in the same way as naturally produced G-CSF by encouraging the bone marrow to produce more white blood cells, increasing white blood cell counts.

What did the company present to support its application?

The company presented results from laboratory studies investigating whether the active substance in Zefylti is highly similar to that in Neupogen in terms of structure, purity and biological activity.

The company also presented results from a study involving 146 healthy male volunteers that aimed to show that Zefylti and the reference medicine, Neupogen, produce similar levels of the active substance in the body. In addition, the study looked at whether both medicines had a similar effect on the number of neutrophils in the blood.

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, at the time of the withdrawal, the Agency had some concerns and its provisional opinion was that Zefylti could not have been authorised.

The Agency had concerns relating to the quality of the medicine, as the company did not have EU certification to show that the medicine had been manufactured according to EU good manufacturing practice (GMP) principles, nor did it have the appropriate EU certification to confirm the quality and safety of the pre-filled syringe.

Therefore, at the time of the withdrawal, the Agency's opinion was that the company had not provided enough data to support the application for Zefylti.

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 it could not provide EU GMP certification for its manufacturing facility within the required time limit.

Does this withdrawal affect patients in clinical trials?

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

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