



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

16 December 2016
EMA/822770/2016
EMA/H/C/004023

Questions and answers

Withdrawal of the marketing authorisation application for Efgratin (pegfilgrastim)

On 16 November 2016, Gedeon Richter Plc officially notified the Committee for Medicinal Products for Human Use (CHMP) that it wishes to withdraw its application for a marketing authorisation for Efgratin, for reducing neutropenia.

What is Efgratin?

Efgratin is a medicine that contains the active substance pegfilgrastim, which stimulates the production of neutrophils (a type of white blood cell that fights infections). It was to be available as a solution for injection under the skin.

Efgratin was developed as a 'biosimilar' medicine. This means that Efgratin was intended to be highly similar to a biological medicine (the 'reference medicine') already authorised in the European Union called Neulasta. For more information on biosimilar medicines, see the question-and-answer document [here](#).

What was Efgratin expected to be used for?

Efgratin was to be used in cancer patients to reduce neutropenia (low levels of neutrophils). Neutropenia is a side effect of certain cytotoxic (cell-killing) cancer treatments because the treatments also kill white blood cells. Efgratin was to be used to reduce the duration of neutropenia and the occurrence of febrile neutropenia (neutropenia with fever).

How does Efgratin work?

The active substance in Efgratin, pegfilgrastim, consists of filgrastim that has been 'pegylated' (attached to a chemical called polyethylene glycol). Filgrastim is very similar to a human protein called



granulocyte-colony-stimulating factor (G-CSF). It encourages the bone marrow to produce more neutrophils and improves the patient's ability to fight off infections.

Because filgrastim is pegylated, its removal from the body is slowed down, allowing the medicine to be given less often.

What did the company present to support its application?

The company presented results of studies in healthy people designed to show that Efgratin is highly similar to its reference medicine Neulasta in terms of chemical structure, purity, the way it works and how the body handles the medicine. A further study in patients receiving cancer medicines compared the safety and effectiveness of Efgratin and Neulasta.

How far into the evaluation was the application when it was withdrawn?

The application was withdrawn after the CHMP had evaluated the documentation provided by the company and formulated lists of questions. After the CHMP had assessed the company's responses to the last round of questions, there were still some unresolved issues.

What was the recommendation of the CHMP at that time?

Based on the review of the data and the company's response to the CHMP list of questions, at the time of the withdrawal, the CHMP had some concerns and was of the provisional opinion that Efgratin could not have been approved for reducing neutropenia. The CHMP was concerned that study results had not shown that Efgratin was handled by the body in the same way as the reference medicine Neulasta.

Therefore, at the time of the withdrawal, the CHMP was of the opinion that the company had not demonstrated that Efgratin is highly similar to Neulasta.

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 having considered the CHMP's conclusion, it has decided to withdraw the application but to continue developing the product and follow the CHMP's advice to eliminate the remaining uncertainty.

The withdrawal letter is available [here](#).

What consequences does this withdrawal have for patients in clinical trials?

The company informed the CHMP that there are no ongoing clinical trials or compassionate-use programmes for Efgratin.