



EUROPEAN MEDICINES AGENCY
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Questions and answers

Withdrawal of the marketing authorisation application for Flud Paediatric (influenza vaccine, surface antigen, inactivated, adjuvanted)

On 10 February 2012, Novartis Vaccines and Diagnostics officially notified the Committee for Medicinal Products for Human Use (CHMP) that it wishes to withdraw its application for a marketing authorisation for Flud Paediatric, for the prevention of seasonal influenza in infants and children.

What is Flud Paediatric?

Flud Paediatric is a vaccine to protect against seasonal influenza. It contains proteins from three inactivated influenza (flu) virus strains. The flu strains used to produce the vaccine was to depend on official recommendations for the annual flu season.

The vaccine is the same as a vaccine that is authorised in several EU countries to prevent seasonal flu in the elderly population.

What was Flud Paediatric expected to be used for?

Flud Paediatric was expected to be used to prevent influenza in infants and children aged from six months to less than nine years.

How is Flud Paediatric expected to work?

Vaccines work by 'teaching' the immune system (the body's natural defences) how to defend itself against a disease. Flud Paediatric contains proteins from three influenza virus strains. The viruses have first been inactivated so that they do not cause any disease. When a person is given the vaccine, the immune system recognises the viral parts as 'foreign' and makes antibodies against them. The



immune system will then be able to produce antibodies more quickly when it is exposed to the viruses again. This may help to protect against the disease caused by the influenza viruses.

The vaccine contains an 'adjuvant' to enhance the immune response.

What did the company present to support its application?

The applicant presented data on experimental models from similar vaccines. The company also presented results of studies in humans, including one main study in 4,902 children. The children were given either Flud Paediatric, another influenza vaccine (Agridipal or Influsplit) or a non-influenza vaccine (Menjugate or Encepur). The study was designed to take place over three flu seasons and looked at the number of cases of influenza that occurred in a season following vaccination.

How far into the evaluation was the application when it was withdrawn?

The application was withdrawn after 'day 180'. This means that 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 first 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 several major concerns. The CHMP was particularly concerned by shortcomings in good clinical practice (GCP) that came to light following an inspection of the sites of the main study. The shortcomings included incorrect data in the dossier submitted to the Agency, which greatly impacted the reliability of the study results. There were also concerns about deficiencies in the laboratory tests used to confirm whether patients had influenza or not.

Other main concerns were related to inadequate data from the company, including the data provided on children aged between six to nine years, children with health conditions and on revaccination.

Therefore, at the time of the withdrawal, the CHMP's conclusion was that the vaccine could not have been approved since the company had not addressed the Committee's main concerns.

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

In its letter notifying the Agency of the withdrawal of application, the company stated that its withdrawal was based on the fact that it was unable to address the concerns of the CHMP within the required timelines.

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

What consequences does this withdrawal have for patients in clinical trials or compassionate use programmes?

The company informed the CHMP that there are no consequences for people currently included in clinical trials using Flud Paediatric.