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**QUESTIONS AND ANSWERS ON RECOMMENDATION FOR THE REFUSAL OF THE
MARKETING AUTHORISATION
for
VECTIBIX**

International non-proprietary name (INN): ***panitumumab***

On 24 May 2007, the Committee for Medicinal Products for Human Use (CHMP) adopted a negative opinion, recommending the refusal of the marketing authorisation for the medicinal product Vectibix 20 mg/ml concentrate for solution for infusion intended for the treatment of metastatic carcinoma of the colon or rectum. The company that applied for authorisation is Amgen Europe B.V. It may request a re-examination of the opinion within 15 days of receipt of notification of this negative opinion.

What is Vectibix?

Vectibix is a solution for infusion (drip into a vein), which contains the active substance panitumumab.

What was Vectibix expected to be used for?

Vectibix was to be used to treat metastatic carcinoma of the colon or rectum. This is cancer of the lower intestine (large bowel) that has spread to other parts of the body. Vectibix was to be used on its own after treatment with a combination of anticancer medicines that includes 5-fluorouracil, irinotecan and oxaliplatin had stopped working.

How is Vectibix expected to work?

The active substance in Vectibix, panitumumab, is a monoclonal antibody. A monoclonal antibody is an antibody (a type of protein) that has been designed to recognise and bind to a specific structure (called an antigen) that is found on certain cells in the body. Panitumumab has been designed to bind to the epidermal growth factor receptor (EGFR), which can be found on the surface of certain tumour cells. As a result of this binding, the tumour cells can no longer receive the messages they need for growth, progression and spreading (metastasis).

What documentation did the company present to support its application to the CHMP?

The effects of Vectibix were first tested in experimental models before being studied in humans. Its effectiveness in colon and rectum cancer was studied in one main study involving 463 patients, where the effects of Vectibix in addition to 'best supportive care' (any medicines or techniques to help patients, such as antibiotics, painkillers, transfusions and surgery, but not other anticancer medicines) were compared with best supportive care alone. The main measure of effectiveness was the time taken before the disease started to get worse or the patient died. The patients receiving best supportive care alone had the option to start receiving Vectibix once their disease had started to get worse.

What were the major concerns that led the CHMP to recommend the refusal of the marketing authorisation?

The CHMP was concerned that there was not sufficient evidence to show a benefit of Vectibix, due to the way the main study was designed. In the first few weeks of the study, many of the patients originally receiving best supportive care alone started to receive Vectibix after their disease had got

worse, making it difficult to compare the effects of Vectibix and best supportive care alone. In addition, Vectibix only had a very small effect in increasing the time until the disease got worse or the patient died, in comparison with best supportive care. Studies also showed that patients receiving Vectibix had increases in side effects. These included skin reactions, which resulted in poorer quality of life in the patients reporting them.

Therefore, at that point in time, the CHMP was of the opinion that the benefits of Vectibix in the treatment of metastatic carcinoma of the colon or rectum did not outweigh its risks. Hence, the CHMP recommended that Vectibix be refused marketing authorisation.

What are the consequences of the refusal for patients in clinical trials or compassionate use programmes using Vectibix?

The company informed the CHMP that there are no consequences for patients currently included in clinical trials or compassionate use programmes with Vectibix. If you are in a clinical trial or compassionate use programme and need more information about your treatment, contact the doctor who is giving it to you.