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Update of 23 March 2018:

The applicant for Nerlynx has requested a re-examination of the CHMP's February 2018 opinion. Upon receipt of the grounds of the request, the CHMP will re-examine its opinion and issue a final recommendation.

23 February 2018

Refusal of the marketing authorisation for Nerlynx (neratinib)

On 22 February 2018, the Committee for Medicinal Products for Human Use (CHMP) adopted a negative opinion, recommending the refusal of the marketing authorisation for the medicinal product Nerlynx, intended for the treatment of breast cancer.

The company that applied for authorisation is Puma Biotechnology Ltd. It may request a re-examination of the opinion within 15 days of receipt of notification of this negative opinion.

What is Nerlynx?

Nerlynx is a medicine that contains the active substance neratinib. It was to be available as tablets.

What was Nerlynx expected to be used for?

Nerlynx was expected to be used to treat adults with early breast cancer who had already had treatment that included another cancer medicine, trastuzumab, but who were at high risk of their cancer coming back. Nerlynx was intended for extended use only with breast cancers that produce high levels of a protein called HER2, which helps cells to divide and grow.

How does Nerlynx work?

The active substance in Nerlynx, neratinib, is a type of cancer medicine called a tyrosine kinase inhibitor. It attaches to the HER2 protein on the cancer cells, and so blocks its action. Because HER2

helps cancer cells to grow and divide, blocking it helps to stop them growing and prevent the cancer coming back.

What did the company present to support its application?

The company provided the results from one main study involving 2,840 women with early breast cancer with high levels of HER2 who had already received treatment that included trastuzumab. In these women, daily treatment with Nerlynx for a year was compared with placebo (a dummy treatment). The main measure of effectiveness was the proportion of women who had lived without the cancer coming back at the end of the 2-year study.

What were the CHMP's main concerns that led to the refusal?

The CHMP considered that a greater proportion of women given Nerlynx in the study lived for 2 years without their disease coming back than women given placebo (around 94% versus 92% respectively). However, it is uncertain that this difference in benefit would be seen in clinical practice. Furthermore, Nerlynx causes side effects in the digestive system, particularly diarrhoea, which affected most patients and might be difficult to manage. The Committee therefore concluded that the benefits were not enough to outweigh the risk of side effects and recommended that Nerlynx be refused marketing authorisation.

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

The company informed the CHMP that there are no consequences for patients currently included in clinical trials with Nerlynx.

If you are in a clinical trial and need more information about your treatment, contact the doctor who is giving it to you.