



EUROPEAN MEDICINES AGENCY  
SCIENCE MEDICINES HEALTH

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Committee for Orphan Medicinal Products

## Recommendation for maintenance of orphan designation at the time of marketing authorisation

Kalydeco (ivacaftor) for the treatment of cystic fibrosis

During its meeting of 12 and 13 June 2012, the Committee for Orphan Medicinal Products (COMP) reviewed the designation EU/3/08/556 for Kalydeco (ivacaftor)<sup>1</sup> as an orphan medicinal product for the treatment of cystic fibrosis. The COMP assessed whether, at the time of marketing authorisation, the medicinal product still met the criteria for orphan designation. The Committee looked at the seriousness and prevalence of the condition, and the existence of other satisfactory methods of treatment. As other methods of treatment for patients with this condition are authorised in the European Union (EU), the COMP also looked at the significant benefit of the product over existing treatments. The COMP recommended that the orphan designation of the medicine be maintained<sup>2</sup>.

### Life-threatening or long-term debilitating nature of the condition

The Committee for Medicinal Products for Human Use (CHMP) recommended the authorisation of Kalydeco for:

'the treatment of cystic fibrosis in patients aged 6 years and older who have a G551D mutation in the CFTR gene'.

This falls within the scope of the product's designated orphan condition, which is 'treatment of cystic fibrosis'.

The COMP concluded that there had been no change in the seriousness of the condition since the orphan designation in 2008. Cystic fibrosis remains a condition that is life-threatening and debilitating in the long-term, particularly due to the recurrent and resistant respiratory infections with development of a lung condition known as bronchiectasis. Death usually occurs from terminal respiratory failure or from haemoptysis (coughing up of blood) due to erosion of large blood vessels in the lungs.

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<sup>1</sup> At time of orphan designation ivacaftor was known as N-(2,4-Di-tert-butyl-5-hydroxyphenyl)-1,4-dihydro-4-oxoquinoline-3-carboxamide.

<sup>2</sup> The maintenance of the orphan designation at time of marketing authorisation would, except in specific situations, give an orphan medicinal product 10 years of market exclusivity in the EU. This means that in the 10 years after its authorisation similar products with a comparable therapeutic indication cannot be placed on the market.



## **Prevalence of the condition**

On the basis of the information provided by the sponsor and the knowledge of the COMP, the COMP concluded that the prevalence of cystic fibrosis remains below the ceiling for orphan designation, which is 5 people in 10,000. At the time of the review of the orphan designation, the prevalence was reviewed based on recent analyses and was estimated to be approximately 0.7 people in 10,000. This is equivalent to a total of around 35,000 people in the EU.

## **Existence of other satisfactory methods of treatment**

At the time of the review of the orphan designation, other treatments were authorised in the EU for use in cystic fibrosis. They include the antibiotics Cayston and Tobi Podhaler used to treat the lung infection in cystic fibrosis and Bronchitol, an agent that facilitates the clearance of bronchial mucus.

## **Significant benefit over existing treatments**

The COMP concluded that the claim of a significant benefit of Kalydeco in cystic fibrosis is justified on the basis of its mechanism of action. Unlike other medicines authorised for use in cystic fibrosis and associated infections, Kalydeco targets the underlying defect in the functioning of the cystic fibrosis transmembrane conductance regulator (CFTR), a protein involved in the production of mucus and digestive juices. Its mechanism of action has been shown to translate into clinical benefits, such as improvements in lung function and a reduction in the number of pulmonary exacerbations. This constitutes a therapeutic advantage for ivacaftor in patients with the CFTR G551D mutation, when used alone or in combination with other medicines authorised for the treatment of cystic fibrosis

Therefore, the COMP concluded that Kalydeco is of significant benefit for patients affected by cystic fibrosis.

## **Conclusions**

Based on the data submitted and the scientific discussion within the COMP, the COMP considered that Kalydeco still meets the criteria for designation as an orphan medicinal product and that Kalydeco should remain in the Community Register of Orphan Medicinal Products.

Further information on the current regulatory status of Kalydeco can be found in the European public assessment report (EPAR) on the Agency's website [ema.europa.eu/Find\\_medicine/Human\\_medicines/European\\_Public\\_Assessment\\_Reports](http://ema.europa.eu/Find_medicine/Human_medicines/European_Public_Assessment_Reports).