EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

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Press Office

Press release

European Medicines Agency recommends authorisation of novel treatment for type 2 diabetes

SGLT2 transporter protein inhibitor improves glycaemic control in adult patients with type 2 diabetes mellitus

The European Medicines Agency's Committee for Medicinal Products for Human Use (CHMP) has recommended the granting of a marketing authorisation for Forxiga (dapagliflozin), a novel treatment for type 2 diabetes mellitus.

There is a need for additional treatment options for type 2 diabetes mellitus, due to the increasing global prevalence of the disease, its progressive nature, which eventually requires combination therapy in most patients, as well as the fact that some patients may experience undesirable side effects from currently available therapies.

According to the World Health Organization, in August 2011 there were 346 million people worldwide with diabetes. Over time, diabetes can damage the heart, blood vessels, eyes, kidneys and nerves. Diabetes increases the risk of heart disease and stroke, and 50% of people with diabetes die of cardiovascular disease. In 2004 an estimated 3.4 million people died from consequences of high blood sugar, and the WHO projects that diabetes deaths will double by 2030.

Forxiga (dapagliflozin), from Bristol-Myers Squibb/ AstraZeneca EEIG, is the first diabetes treatment to work by inhibiting the sodium-glucose co-transporter 2 (SGLT2), a transporter protein in the kidneys that allows glucose to be reabsorbed into the bloodstream. Its mechanism of action allows improvement of glycaemic control in type 2 diabetes without increasing insulin secretion.

In clinical trials, Forxiga has shown to improve glycaemic control when given alone or in combination with various antidiabetics, with effects similar to those of glipizide and metformin. The effect of dapagliflozin appears to be maintained in the long term (up to 102 weeks).

Safety concerns with Forxiga identified in the clinical trials included an increased number of bladder and breast tumours in dapagliflozin-treated patients, limited data available in patients above 75 years, the use in patients at risk of volume depletion, hypotension and electrolytes imbalances. The CHMP assessed these concerns and found that they are satisfactorily addressed in the product information and in the risk management plan for Forxiga.

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As the effects of dapagliflozin are dependent on kidney function, the efficacy of the medicine is reduced in patients with kidney impairment. Therefore, the use of Forxiga is not recommended in patients with moderate to severe kidney impairment.

Overall there was no imbalance of malignancies between dapagliflozin-treated patients and those on control. The unexpected finding of more bladder (0.16% as compared to 0.03% in the controls) and breast cancers (0.40% as compared to 0.22% in the controls) in dapagliflozin-treated patients is of concern especially in the light of potentially long treatment periods and a possible widespread use. Even though data from carcinogenicity studies in animals did not indicate a genotoxic or carcinogenic effect of dapagliflozin, the CHMP considered it necessary to keep this potential risk under close observation and requested the applicant to conduct an epidemiological study with dapagliflozin.

The potential risk of cancer will also be looked at in the planned cardiovascular outcome study further investigating potential cardiovascular risks of dapagliflozin.

Following the review of all available data, the Committee concluded during its April 2012 meeting that the benefits of Forxiga outweigh its risks, and recommended that a marketing authorisation be granted.

Notes

1. This press release, together with all related documents, is available on the Agency's website.
2. A summary of the opinion of the CHMP is available on the Agency's website.
3. The Committee's recommendation has now been forwarded to the European Commission for the granting of a binding Commission decision.
4. The scientific assessment of the CHMP will be published after the granting of the Commission decision as part of the European public assessment report and will be available on the Agency's website.
5. Diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. Insulin is a hormone that regulates blood sugar. Hyperglycaemia, or raised blood sugar, is a common effect of uncontrolled diabetes and over time leads to serious damage to many of the body's systems, especially the nerves and blood vessels.

   Type 1 diabetes is characterised by deficient insulin production and requires daily administration of insulin. Type 2 diabetes results from the body's ineffective use of insulin. Type 2 diabetes comprises 90% of patients with diabetes around the world, with over 55 million in Europe.

   More information on diabetes can be found on the WHO website: http://www.who.int/mediacentre/factsheets/fs312/en/index.html
6. More information on the work of the European Medicines Agency can be found on its website: www.ema.europa.eu

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