Study: Type 2 diabetes pill Jardiance cuts risk of death

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Jardiance sharply reduced chances of dying in diabetic patients at high risk of heart complications, a study shows, making the Type 2 diabetes medication the first shown to lengthen diabetics' lives.

The study found Jardiance reduced deaths from heart complications by 38 percent, deaths from any cause by 32 percent and hospitalizations due to chronic heart failure by 35 percent.

Heart complications prematurely kill many of the estimated 387 million diabetics worldwide, so doctors in recent years have moved from trying to reduce patients' blood sugar to trying to prevent cardiovascular complications.

The results were particularly striking because nearly four-fifths of the participants were already taking standard medicines to control blood sugar, blood pressure and cholesterol, plus taking either Jardiance or a dummy pill.

Wall Street was impressed, driving shares of drugmaker Eli Lilly and Co. up 6.6 percent to $89.98. Earlier the stock traded at $92.85, its highest point in nearly 15 years.

Lilly and German partner Boehringer Ingelheim Pharmaceuticals Inc. funded the study, which included 7,020 patients in 42 countries followed for about three years, on average.
Last month, the drugmakers announced their study showed cardiovascular deaths were lower in participants taking Jardiance than those given a dummy pill, in addition to standard heart and diabetes drugs. Detailed results were released Thursday, simultaneously at a European medical conference and in the New England Journal of Medicine.

"Patients who took this drug had basically a 1-in-3 chance of avoiding death," said Dr. Silvio Inzucchi, director of the Yale Diabetes Center and a professor at Yale School of Medicine. He was part of the committee overseeing the study.

Given the savings from averting costly hospitalizations, Jardiance should appeal to insurers as well as doctors and patients, even with a wholesale price of $343 per month—among the most expensive for diabetes medicines.

Heart attacks, strokes and other cardiovascular damage kill about half of Type 2 diabetes patients, as excess sugar in their blood steadily damages the heart and blood vessels, along with other organs.

For those at high risk of heart complications—people who've already had a heart attack or stroke, have blocked arteries or suffer chronic heart pain—diabetes and heart disease together on average shorten life expectancy by 12 years from age 60, according to a five-decade British study that included about 690,000 people.

The Jardiance study, called EMPA-REG, found the drug reduced by 14 percent the combined number of nonfatal heart attacks, nonfatal strokes and deaths due to heart complications in study participants. Those outcomes are typically analyzed as a group in studies involving heart risks.
"It's a quite impressive study," given the results and number of patients and countries included, said Dr. Yogish Kudva, a Mayo Clinic diabetes specialist not involved in the research.

Kudva noted one riddle: While many deaths and hospitalizations were prevented, the number of nonfatal heart attacks and strokes didn't decrease significantly.

Inzucchi said researchers are still analyzing study data and may uncover an explanation, but additional research on Jardiance and similar drugs may be needed.

Drugs in the class, called SGLT2 inhibitors, help the kidneys excrete more sugar from the blood through urine. Others include Johnson & Johnson's Invokana and AstraZeneca PLC's Farxiga. Merck & Co. is testing another one.

Jardiance, launched in August 2014, brought Lilly just $30 million in sales from January through June; privately held Boehringer Ingelheim hasn't disclosed its revenue.

Sanford Bernstein analyst Dr. Tim Anderson wrote to investors that the study should help all the SGLT2 drugs slightly reduce sales of other classes of Type 2 diabetes drugs over time, though patients usually take multiple types at once. He tripled his forecast for 2020 sales of Jardiance, to $2.7 billion.

SGLT2 drugs shouldn't be taken by patients with kidney damage. Side effects include dehydration, low blood sugar, urinary tract infections, a life-threatening condition called ketoacidosis, bone fractures and, most commonly, yeast infections in the vagina and on the penis.

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