US FDA approves Jardiance® (empagliflozin) for the treatment of type 2 diabetes in children 10 years and older

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- *Empagliflozin is the first and only SGLT2 inhibitor approved for this patient population*
- *More than 5,700 young people are diagnosed with type 2 diabetes annually in the U.S.*

RIDGEFIELD, Conn. and INDIANAPOLIS, June 21, 2023 /PRNewswire/ -- The U.S. Food and Drug Administration (FDA) has approved Jardiance® (empagliflozin) 10 mg and 25 mg tablets to lower blood sugar along with diet and exercise in children 10 years and older with type 2 diabetes, Boehringer Ingelheim and Eli Lilly and Company (NYSE: LLY) announced.

Jardiance is not recommended in patients with type 1 diabetes. It may increase the risk of diabetic ketoacidosis in these patients. Jardiance is not recommended for use to improve glycemic control in patients with type 2 diabetes with an eGFR less than 30 mL/min/1.73 m^2. Jardiance is likely to be ineffective in this setting based upon its mechanism of action.

"As the burden of type 2 diabetes increases among young people, so does the need for additional treatment options with proven clinical benefits," said Lennart Jungersten, M.D., Ph.D., senior vice president, Medicine & Regulatory Affairs, Boehringer Ingelheim. "This FDA approval, which is based on the efficacy results and safety data from the DINAMO trial, marks an important milestone in helping address a clear unmet need for oral treatment options, in addition to metformin, to lower A1c in this rapidly rising population."

Type 2 diabetes represents a significant and growing health concern among young people in the U.S. Over the past two decades, the prevalence of type 2 diabetes in people aged 10-19 has nearly doubled. New treatment options are critical to help address the over 5,700 new cases of type 2 diabetes in this population each year in the U.S.

The FDA approval is based on the results from the DINAMO phase III trial, in which Jardiance was associated with a statistically significant reduction in the primary endpoint of change from baseline in A1c at 26 weeks compared with placebo in participants aged 10-17 years with type 2 diabetes. When added to other baseline treatments (diet, exercise, metformin and/or insulin), Jardiance 10 mg and 25 mg pooled doses reduced A1c by 0.8% compared with placebo at week 26 (95% CI −1.5 to −0.2; P=0.0116). The safety profile of pediatric patients treated with Jardiance was similar to that observed in adults with type 2 diabetes, with the exception of hypoglycemia risk, which was higher in pediatric patients treated with Jardiance regardless of concomitant insulin use.

Jardiance is contraindicated in people with hypersensitivity to empagliflozin or any of the excipients in Jardiance, as reactions such as angioedema have occurred, and in patients on dialysis. **Please see additional Important Safety Information below.**

"With this latest FDA decision, Jardiance is now approved to lower A1c along with diet and exercise in children 10 years and older with type 2 diabetes," said Leonard Glass, M.D., F.A.C.E., senior vice president, Diabetes & Obesity Global Medical Affairs, Lilly. "This decision brings us one step closer in our efforts to improve outcomes for this population and supports our larger commitment to advance treatment options for people living with a range of cardiometabolic conditions."

About DINAMO: DIabetes study of liNAgliptin and eMpagliflozin in children and adOlescents
DINAMO (NCT03429543) is a multicenter, randomized, double-blind, parallel group phase III trial that enrolled participants aged 10-17 years with type 2 diabetes (A1c 6.5% to 10.5%) previously treated with metformin or insulin. The primary endpoint was change from baseline in A1c at 26 weeks. Of the 262 participants screened, 158 were randomly assigned to treatment with Jardiance (10 mg) (n=52), linagliptin (5 mg) (n=53) or placebo (n=53) once daily. Participants in the Jardiance group who did not have A1c below 7.0% by week 12 were re-randomized at week 14, either remaining on 10 mg or increasing to 25 mg. Participants in the placebo group were randomly reassigned at week 26 to linagliptin 5 mg or Jardiance 10 mg or 25 mg. All participants were treated with diet and exercise plus metformin and/or insulin (or no background if metformin intolerant). Safety was assessed until week 52.

What is JARDIANCE?

JARDIANCE is a prescription medicine used to:

- reduce the risk of cardiovascular death and hospitalization for heart failure in adults with heart failure, when the heart cannot pump enough blood to the rest of your body
- reduce the risk of cardiovascular death in adults with type 2 diabetes who also have known cardiovascular disease
- lower blood sugar along with diet and exercise in adults and children who are 10 years of age and older with type 2 diabetes

JARDIANCE is not for people with type 1 diabetes. It may increase their risk of diabetic ketoacidosis (increased ketones in the blood or urine).

JARDIANCE is not for use to lower blood sugar in adults with type 2 diabetes who have severe kidney problems, because it may not work.

IMPORTANT SAFETY INFORMATION
Do not take JARDIANCE if you are allergic to empagliflozin or any of the ingredients in JARDIANCE.

Do not take JARDIANCE if you are on dialysis.

JARDIANCE can cause serious side effects, including:

- **Ketoacidosis (increased ketones in your blood or urine).** Ketoacidosis is a serious condition which needs to be treated in the hospital. Ketoacidosis may lead to death. Ketoacidosis occurs in people with type 1 diabetes and can also occur in people with type 2 diabetes taking JARDIANCE, **even if blood sugar is less than 250 mg/dL**. Ketoacidosis has also happened in people with diabetes who were sick or who had surgery during treatment with JARDIANCE. **Stop taking JARDIANCE and call your healthcare provider right away or go to the nearest hospital emergency room if you get any of the following symptoms,** and if possible, check for ketones in your urine:
    - nausea
    - vomiting
    - stomach-area (abdominal) pain
    - tiredness
    - trouble breathing

- **Dehydration.** JARDIANCE can cause some people to become dehydrated (the loss of body water and salt). Dehydration may cause you to feel dizzy, faint, light-headed, or weak, especially when you stand up. Sudden worsening of kidney function has happened in people who are taking JARDIANCE.

  You may be at a higher risk of dehydration if you:
    - take medicines to lower your blood pressure, including water pills (diuretics)
    - are on a low salt diet
    - have kidney problems
    - are 65 years of age or older

Talk to your healthcare provider about what you can do to prevent dehydration, including how much fluid you should drink on a daily basis, and if you reduce the amount of food or liquid you drink, if you are sick or cannot eat, or start to lose liquids from your body from vomiting, diarrhea, or being in the sun too long.

- **Serious urinary tract infections.** Serious urinary tract infections can occur in people taking JARDIANCE and may lead to hospitalization. Tell your healthcare provider if you have symptoms of a urinary tract infection, such as a burning feeling when passing urine, a need to urinate often or right away, pain in the lower part of your stomach or pelvis, or blood in the urine. Sometimes people also may have a fever, back pain, nausea or vomiting.

- **Low blood sugar** (hypoglycemia): In adults, if you take JARDIANCE with another medicine that can cause low blood sugar, such as sulfonylurea or insulin, your risk of low blood sugar is higher. In children 10 years of age and older, the risk for low blood sugar may be higher with JARDIANCE regardless of use with another medicine that can also lower blood sugar. The dose of your sulfonylurea or insulin may need to be lowered. Symptoms of low blood sugar may include:
    - headache
    - drowsiness
    - weakness
    - dizziness
    - confusion
    - irritability
    - hunger
    - fast heartbeat
    - sweating
    - shaking or feeling jittery

- **Necrotizing fasciitis. A rare but serious bacterial infection that causes damage to the tissue under the skin in the area between and around your anus and genitals (perineum).** This bacterial infection has happened in women and men who take JARDIANCE, and may lead to hospitalization, multiple surgeries, and death. **Seek medical attention immediately if you have a fever or are feeling very weak, tired or uncomfortable (malaise), and you develop any of the following symptoms in the area between and around your anus and genitals: pain or tenderness, swelling, and redness of skin (erythema).**

- **Vaginal yeast infection.** Talk to your healthcare provider if you have vaginal odor, white or yellowish vaginal discharge (discharge may be lumpy or look like cottage cheese), and/or vaginal itching.

- **Yeast infection of the penis.** Swelling of an uncircumcised penis may develop that makes it difficult to pull back the skin

around the tip of the penis. Talk to your healthcare provider if you have redness, itching or swelling of the penis, rash of the penis, foul smelling discharge from the penis, and/or pain in the skin around the penis.

Talk to your healthcare provider about what to do if you get symptoms of a yeast infection of the vagina or penis. Your healthcare provider may suggest you use an over-the-counter antifungal medicine. Talk to your healthcare provider right away if you use an over-the-counter antifungal medication and your symptoms do not go away.

- **Allergic (hypersensitivity) reactions.** Symptoms of serious allergic reactions to JARDIANCE may include:
  - swelling of your face, lips, throat, and other areas of your skin
  - difficulty with swallowing or breathing
  - raised, red areas on your skin (hives)

If you have any of these symptoms, stop taking JARDIANCE and contact your healthcare provider or go to the nearest emergency room right away.

The most common side effects of JARDIANCE include urinary tract infections and yeast infections in females.

These are not all the possible side effects of JARDIANCE. For more information, ask your healthcare provider or pharmacist.

Before taking JARDIANCE, tell your healthcare provider about all of your medical conditions, including if you:

- have kidney problems
- have liver problems
- have a history of infection of the vagina or penis
- have a history of urinary tract infections or problems with urination
- are going to have surgery. Your healthcare provider may stop JARDIANCE before you have surgery. Talk to your healthcare provider about when to stop taking JARDIANCE if you are having surgery and when to start it again
- are eating less or there is a change in your diet
- have or have had problems with your pancreas, including pancreatitis or surgery on your pancreas
- drink alcohol very often, or drink a lot of alcohol in the short term ("binge" drinking)
- have type 1 diabetes. JARDIANCE should not be used to treat people with type 1 diabetes
- are pregnant or plan to become pregnant. JARDIANCE may harm your unborn baby. Tell your healthcare provider right away if you become pregnant during treatment with JARDIANCE
- are breastfeeding or are planning to breastfeed. JARDIANCE may pass into your breast milk and may harm your baby. Do not breastfeed while taking JARDIANCE

Tell your healthcare provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch or call 1-800-FDA-1088.

For more information, please see Prescribing Information and Medication Guide.

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Boehringer Ingelheim and Eli Lilly and Company
In January 2011, Boehringer Ingelheim and Eli Lilly and Company announced an Alliance that centers on compounds representing several of the largest diabetes treatment classes. Depending on geographies, the companies either co-promote or separately promote the respective molecules each contributing to the Alliance. The Alliance leverages the strengths of two of the world's leading pharmaceutical companies to focus on patient needs. By joining forces, the companies demonstrate their commitment, not only to the care of people with diabetes, but also to investigating the potential to address areas of unmet medical need.

About Boehringer Ingelheim
Boehringer Ingelheim is working on breakthrough therapies that transform lives, today and for generations to come. As a leading research-driven biopharmaceutical company, the company creates value through innovation in areas of high unmet medical need. Founded in 1885 and family-owned ever since, Boehringer Ingelheim takes a long-term, sustainable perspective. More than 53,000 employees serve over 130 markets in the two business units Human Pharma and Animal Health. Learn more at boehringer-ingelheim.com/us/

About Lilly
Lilly unites caring with discovery to create medicines that make life better for people around the world. We've been pioneering life-changing discoveries for nearly 150 years, and today our medicines help more than 51 million people across the globe. Harnessing the power of biotechnology, chemistry and genetic medicine, our scientists are urgently advancing new discoveries to solve some of the world's most significant health challenges, redefining diabetes care, treating obesity and curtailing its most devastating long-term effects, advancing the fight against Alzheimer's disease, providing solutions to some of the most debilitating immune system disorders, and transforming the most difficult-to-treat cancers into manageable diseases. With each step toward a healthier world, we're motivated by one thing: making life better for millions more people. That includes delivering innovative clinical trials that reflect the diversity of our world and working to ensure our medicines are accessible and affordable. To learn more, visit Lilly.com and Lilly.com/newsroom or follow us on Facebook, Instagram, Twitter and LinkedIn.

Cautionary Statement Regarding Forward-Looking Statements
This press release contains forward-looking statements (as that term is defined in the Private Securities Litigation Reform Act of 1995) about

Jardiance® as a treatment for adults with type 2 diabetes, to reduce the risk of cardiovascular death in adults with type 2 diabetes and known cardiovascular disease, to reduce the risk of cardiovascular death and hospitalization for heart failure in adults with heart failure, and as a treatment for children 10 years and older with type 2 diabetes, and reflects Lilly's current beliefs and expectations. However, as with any pharmaceutical product, there are substantial risks and uncertainties in the process of drug research, development and commercialization. Among other things, there is no guarantee that planned or ongoing studies will be completed as planned, that future study results will be consistent with study results to date or that Jardiance® will receive additional regulatory approvals. For further discussion of these and other risks and uncertainties that could cause actual results to differ from Lilly's expectations, see Lilly's Form 10-K and Form 10-Q filings with the United States Securities and Exchange Commission. Except as required by law, Lilly undertakes no duty to update forward-looking statements to reflect events after the date of this release.

Jardiance® is a registered trademark of Boehringer Ingelheim.

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SOURCE Eli Lilly and Company