

# Phase 3 CREDENCE Renal Outcomes Trial of INVOKANA® (canagliflozin) is Being Stopped Early for Positive Efficacy Findings

*INVOKANA® has the potential to be the first new therapy in more than 15 years for slowing the progression of chronic kidney disease in patients with type 2 diabetes*

*Worldwide, 160 million patients with type 2 diabetes are at risk for developing chronic kidney disease<sup>1</sup>*

*CREDENCE assessed INVOKANA® for renal protection by evaluating the risk reduction of the composite endpoint of time to dialysis or kidney transplantation, doubling of serum creatinine, and renal or cardiovascular death, when used in addition to standard of care*

**RARITAN, N.J., July 16, 2018** – The Janssen Pharmaceutical Companies of Johnson & Johnson today announced that the Phase 3 CREDENCE (**C**anagliflozin and **R**enal **E**vents in **D**iabetes with **E**stablished **N**ephropathy **C**linical **E**valuation) clinical trial, evaluating the efficacy and safety of INVOKANA® (canagliflozin) versus placebo when used in addition to standard of care for patients with chronic kidney disease (CKD) and type 2 diabetes (T2D), is being stopped early based on the achievement of pre-specified efficacy criteria.

The decision is based on a recommendation from the study's Independent Data Monitoring Committee (IDMC) that met to review the data during a planned interim analysis. This recommendation was based on demonstration of efficacy, as the trial had achieved pre-specified criteria for the primary composite endpoint of end-stage kidney disease (time to dialysis or kidney transplantation), doubling of serum creatinine, and renal or cardiovascular (CV) death, when used in addition to standard of care.

“Nearly half of all people with type 2 diabetes will develop chronic kidney disease, causing a high risk of kidney failure and cardiovascular disease, and impacting their quality and length of life, even with the current best available care. This huge unmet need is why it was so important for us to initiate the landmark CREDENCE renal outcomes trial over four years ago,” said Vlado Perkovic, M.B.B.S, Ph.D., F.A.S.N., F.R.A.C.P., CREDENCE Steering Committee co-chair, Professor of Medicine, University of New South Wales Sydney, and Executive Director, The George Institute for Global Health Australia. “We have accepted the advice of the Independent Data Monitoring Committee to stop the CREDENCE trial early due to demonstration of efficacy, and look forward to sharing the findings as soon as possible.”

“Chronic kidney disease is a progressive condition that impacts a person's overall health and well-being, and with millions of people worldwide suffering from the disease, we know that there is a clear need for new treatment options,” said James List, M.D., Ph.D., Global Therapeutic Area Head, Cardiovascular & Metabolism, Janssen Research & Development, LLC. “We are excited about the possibility of bringing forth INVOKANA® (canagliflozin) as the first therapy to treat patients with chronic kidney disease

and type 2 diabetes in more than 15 years. We look forward to presenting the full data from the CREDENCE trial at an upcoming medical meeting and with health authorities in the near future.”

CREDENCE is the first dedicated renal outcomes trial in patients with CKD and T2D on the background of standard of care, including angiotensin-converting enzyme (ACE) inhibitors and angiotensin II receptor blockers (ARBs). This randomized, double-blind, placebo-controlled, parallel-group, multicenter clinical trial evaluates the efficacy and safety of canagliflozin versus placebo in preventing clinically important renal and CV outcomes in patients with T2D and established kidney disease. The trial enrolled approximately 4,400 patients with T2D, estimated glomerular filtration rate  $\geq 30$  to  $< 90$  mL/min/1.73 m<sup>2</sup>, and albuminuria (urinary albumin: creatinine ratio  $> 300$  to  $\leq 5,000$  mg/g). All patients were required to be on the maximum labeled or tolerated dose of an ACE inhibitor or ARB for more than four weeks prior to randomization.

At this time, INVOKANA® is contraindicated for patients with severe renal impairment (eGFR less than 30 mL/min/1.73 m<sup>2</sup>), end-stage renal disease (ESRD), or patients on dialysis. In addition, INVOKANA® is not recommended when eGFR is persistently less than 45 mL/min/1.73 m<sup>2</sup>. Please see the Important Safety Information below and the full Prescribing Information for additional details.

## WHAT IS INVOKANA®?

INVOKANA® is a prescription medicine used along with diet and exercise to lower blood sugar in adults with type 2 diabetes. INVOKANA® is not for people with type 1 diabetes or with diabetic ketoacidosis (increased ketones in blood or urine). It is not known if INVOKANA® is safe and effective in children under 18 years of age.

## IMPORTANT SAFETY INFORMATION

**INVOKANA® can cause important side effects, including:**

- **Amputations. INVOKANA® may increase your risk of lower-limb amputations. Amputations mainly involve removal of the toe or part of the foot; however, amputations involving the leg, below and above the knee, have also occurred. Some people had more than one amputation, some on both sides of the body.** You may be at a higher risk of lower-limb amputation if you: have a history of amputation, have heart disease or are at risk for heart disease, have had blocked or narrowed blood vessels (usually in leg), have damage to the nerves (neuropathy) in the leg, or have had diabetic foot ulcers or sores. Call your doctor right away if you have new pain or tenderness, any sores, ulcers, or infections in your leg or foot. Your doctor may decide to stop your INVOKANA®. Talk to your doctor about proper foot care
- **Dehydration. INVOKANA® can cause some people to become dehydrated (the loss of too much body water), which may cause you to feel dizzy, faint, lightheaded, or weak, especially when you stand up (orthostatic hypotension).** You may be at higher risk of dehydration if you have low blood pressure, take medicines to lower your blood pressure (including diuretics [water pills]), are on a low sodium (salt) diet, have kidney problems, or are 65 years of age or older

- **Vaginal yeast infection.** Women who take INVOKANA® may get vaginal yeast infections. Symptoms include: vaginal odor, white or yellowish vaginal discharge (discharge may be lumpy or look like cottage cheese), or vaginal itching
- **Yeast infection of the penis (balanitis or balanoposthitis).** Men who take INVOKANA® may get a yeast infection of the skin around the penis. Symptoms include: redness, itching, or swelling of the penis; rash of the penis; foul-smelling discharge from the penis; or pain in the skin around penis

Talk to your doctor about what to do if you get symptoms of a yeast infection of the vagina or penis.

**Do not take INVOKANA® if you:**

- are allergic to canagliflozin or any of the ingredients in INVOKANA®. Symptoms of allergic reaction may include: rash; raised red patches on your skin (hives); or swelling of the face, lips, tongue, and throat that may cause difficulty in breathing or swallowing
- have severe kidney problems or are on dialysis

**Before you take INVOKANA®, tell your doctor** if you have a history of amputation; heart disease or are at risk for heart disease; blocked or narrowed blood vessels (usually in leg); damage to the nerves (neuropathy) of your leg; diabetic foot ulcers or sores; kidney problems; liver problems; history of urinary tract infections or problems with urination; are on a low sodium (salt) diet; are going to have surgery; are eating less due to illness, surgery, or change in diet; pancreas problems; drink alcohol very often (or drink a lot of alcohol in short-term); ever had an allergic reaction to INVOKANA®; or have other medical conditions.

**Tell your doctor if you are or plan to become pregnant, are breastfeeding, or plan to breastfeed.** INVOKANA® may harm your unborn baby. If you become pregnant while taking INVOKANA®, tell your doctor right away. INVOKANA® may pass into your breast milk and may harm your baby. Do not breastfeed while taking INVOKANA®.

**Tell your doctor about all the medicines you take, including prescription and non-prescription medicines, vitamins, and herbal supplements.** Especially tell your doctor if you take diuretics (water pills), rifampin (used to treat or prevent tuberculosis), phenytoin or phenobarbital (used to control seizures), ritonavir (Norvir®, Kaletra® – used to treat HIV infection), or digoxin (Lanoxin® – used to treat heart problems).

**Possible Side Effects of INVOKANA®**

**INVOKANA® may cause serious side effects, including:**

- **Ketoacidosis (increased ketones in your blood or urine).** Ketoacidosis has happened in people who have type 1 or type 2 diabetes, during treatment with INVOKANA®. Ketoacidosis is a serious condition, which may need to be treated in a hospital. Ketoacidosis may lead to death. **Ketoacidosis can happen with INVOKANA® even if your blood sugar is less than 250 mg/dL. Stop taking INVOKANA® and call your doctor right away if you get any of the following symptoms: nausea, vomiting, stomach-area pain, tiredness, or trouble breathing**

- **Kidney problems.** Sudden kidney injury has happened to people taking INVOKANA®. Talk to your doctor right away if you: 1) reduce the amount of food or liquid you drink, if you are sick, or cannot eat or 2) you start to lose liquids from your body from vomiting, diarrhea, or being in the sun too long
- **A high amount of potassium in your blood (hyperkalemia)**
- **Serious Urinary Tract Infections:** may lead to hospitalization and have happened in people taking INVOKANA®. Tell your doctor if you have signs or symptoms of a urinary tract infection such as: burning feeling while urinating, need to urinate often or right away, pain in the lower part of your stomach (pelvis), or blood in the urine. Some people may also have high fever, back pain, nausea, or vomiting
- **Low blood sugar (hypoglycemia).** If you take INVOKANA® with another medicine that can cause low blood sugar, such as a sulfonylurea or insulin, your risk of getting low blood sugar is higher. The dose of your sulfonylurea medicine or insulin may need to be lowered while you take INVOKANA®

Signs and symptoms of low blood sugar may include: headache, drowsiness, weakness, dizziness, confusion, irritability, hunger, fast heartbeat, sweating, shaking, or feeling jittery.

**Serious allergic reaction.** If you have any symptoms of a serious allergic reaction, stop taking INVOKANA® and call your doctor right away or go to the nearest hospital emergency room.

**Broken Bones (fractures):** Bone fractures have been seen in patients taking INVOKANA®. Talk to your doctor about factors that may increase your risk of bone fracture.

The most common side effects of INVOKANA® include: vaginal yeast infections and yeast infections of the penis; changes in urination, including urgent need to urinate more often, in larger amounts, or at night.