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## Sodium Glucose Co-transporter 2 Inhibitors

### Information for patients

#### Why have I been given this leaflet?

You have been given this leaflet because you are taking, or about to take, one of tablets in the list below:

- Empagliflozin (Jardiance®)
- Canagliflozin (Invokana®)
- Dapagliflozin (Forxiga®)
- Ertugliflozin (Steglatro®)

These tablets are called Sodium-glucose co-transporter-2 inhibitors or **SGLT2 inhibitors**.

#### What is an SGLT2 inhibitor?

SGLT2 inhibitors are a type of tablet for diabetes.

They work in the kidneys so that glucose (sugar) comes out in your urine. This will lower your blood sugar levels helping to control your diabetes.

They can protect your heart and kidneys by reducing the risk of heart failure, heart attacks and strokes in people at most risk.

SGLT2 inhibitors can also help with weight loss and improve blood pressure.

Some of the benefits of these tablets can also be seen in people who **don't** have diabetes.

#### Why have I been prescribed an SGLT2 inhibitor?

You have been started on this medication because you have heart failure or kidney disease, whether or not you have diabetes.

#### How do I take these tablets?

SGLT2 inhibitors are taken once a day with or without food.

You can take the tablet at any time of the day but try to take it at the same time each day.

#### **If you forget to take a dose:**

- If it is more than 12 hours until your next dose, take it as soon as you remember. Take your next dose at the usual time.
- If it is less than 12 hours until your next dose. Skip the missed dose and take your next dose at the usual time.
- Do not take a double dose to make up for a forgotten dose.

**As well as this leaflet, please read the patient information sheet that came with the medicine box.**

**Is there any reason I shouldn't take this medication?**

There may be some reasons why this medication is not suitable for you. You will need to discuss these with your doctor.

- If you have been told you are allergic to lactose as these tablets contain lactose (milk sugar).
- If you are taking herbal remedies, for example St John's Wort.
- If you are pregnant or breast feeding. If you are planning to have a baby you must speak to your doctor before you get pregnant.

**What are the possible side-effects?**

All types of medication can have side-effects – some very common and some very rare. The side effects are explained below.

**Very common (1 in 10 people that take the medication)**

• **Hypoglycaemia (low blood sugars)**

Taking SGLT2 inhibitors with insulin or a type of medication called sulphonylureas (for example: gliclazide, tolbutamide or glimepiride) may increase the risk of hypoglycaemia (low blood sugars). Your doctor may need to adjust your other diabetes medicines.

If you take insulin to control your diabetes **never stop taking this**. If you are not sure what to do about your low blood sugars, contact your GP or the healthcare team that help you manage your diabetes.

**Common side effects**

**(1 in 10 to 1 in 100 people that take the medication)**

• **Genital thrush or urinary tract infection**

As these tablets cause more sugar to be passed in the urine, there is a higher risk of getting **infections** such as thrush around the vagina or penis. These side-effects are more common in women than in men.

These infections can be easily treated and a pharmacist at a local chemist or your GP can give you advice if irritation or itching occurs. Wash your genital area using non-perfumed soap and avoid wearing tight underwear to reduce the risk of infection.

• **Passing more urine more often and increased thirst**

• **Itching / rash**

## **Uncommon side effects**

**(1 in 100 to 1 in 1,000 people that take the medication)**

### **• Low blood pressure and dehydration**

SGLT2 inhibitors work in the kidneys and therefore can increase the loss of water from your body and cause **dehydration and low blood pressure**.

This happens more often if you:

- have been sick
- have diarrhoea or
- are not able to eat or drink.

• It is also more common if you:

- are over 75 years old
- have kidney problems
- are taking water tablets (also called diuretics).

Let your doctor know if you feel light-headed or faint or have unusual thirst.

To help stop dehydration, you **must** drink at least 2 litres (about 4 pints) of non-sugary drinks a day.

### **• Difficulty passing urine (dysuria)**

## **Rare side effects**

**(1 in 1,000 to 1 in 10,000 people that take the medication)**

### **• Necrotising fasciitis of the perineum (Fournier's gangrene)**

There is an extremely small risk of developing a rare but serious infection, called necrotising fasciitis of the perineum or Fournier's gangrene.

The symptoms you should look out for are:

- pain and redness of the genitals or the area around the genitals and the buttocks
- a fever or high temperature

**If this happens, you must get medical help straight away.**

### **• Diabetic ketoacidosis (DKA)**

These tablets can lead to a serious condition called Diabetic Ketoacidosis (DKA) - in people with diabetes. This causes too much acid to build up in your blood. Ketoacidosis may happen when your blood sugars are normal or high, so it is very important to look out for these symptoms:

- nausea (feeling sick) or vomiting
- new sudden worsening of shortness of breath
- new sudden stomach pain.

You need to be careful if you develop an infection (such as a chest or urine infection) or have surgery. The risk of DKA is increased if you do not eat for long periods, become dehydrated, reduce your insulin dose too quickly or drink excessive alcohol.

**If you have any of these symptoms, stop taking these tablets and get urgent (same day) medical advice**, even if your blood sugars are normal. Tell the doctor that you are taking an SGLT2 inhibitor and you are worried about 'Diabetic Ketoacidosis'.

If you **don't** have diabetes and have been prescribed this medication, ketoacidosis can happen - although it is very rare. It can happen if you:

- Follow a very low carbohydrate diet (keto diet)
- Don't eat for long periods
- Regularly drink excessive amounts of alcohol

If you are concerned about this, please contact your doctor.

### **When should I stop taking my SGLT2 inhibitor?**

**If you are unable to eat and drink** (for example feeling sick, with nausea or vomiting) or if you are unwell with an infection or severe illness. If this happens you need to:

- Stay hydrated: drink at least ½ cup (100mls) of water (or other sugar free drink) every hour
- Replace your meals with sugary fluids or ice cream for example: milk - 1 cup (200 ml), fruit juice – small glass (100 ml), full sugar pop (150 ml), fruit yoghurt – (150g)
- Check your blood sugar every 2 to 4 hours.

You can restart these tablets as soon as you are well and eating normally. If you are still unwell after 48 hours, get urgent medical help from your doctor, pharmacist or call NHS 111.

**Before stopping eating and drinking for an operation or procedure.** The tablets should be stopped **48 hours (2 days) before** the day of your operation or procedure.

### **Fasting for religious or spiritual reasons.**

It is not recommended that people taking SGLT2 inhibitors fast for long periods. If you do intend to fast, please get advice from the doctor or healthcare team that prescribed the SGLT2is before you start your fast. They will go through your individual risk and give you advice on what to do and look out for.