

Patient Information - Sodium glucose co-transporter-2 inhibitors (SGLT2i)

Introduction

The purpose of this leaflet is to give you information about sodium glucose co-transporter-2 inhibitors (SGLT2i). It can answer some of the questions that you may have about these medicines. It does not replace the discussion between you and your medical team.

What have I been prescribed?

You are being treated with one of the SGLT2 inhibitor medicines. These include canagliflozin (Invokana®), dapagliflozin (Forxiga®), empagliflozin (Jardiance®) and ertugliflozin (Steflatro®).

What are the benefits of SGLT2 inhibitors?

These medicines lower blood glucose (sugar) by increasing the amount of glucose in the urine. They can be used to treat diabetes and can reduce the development and progression of kidney disease and heart failure, in people with or without diabetes.

How do I take this medication?

These medicines are taken once a day. They can be taken with or without food although it's best to take them before the first meal of the day.

Which other medicines interact with SGLT2 inhibitors?

- Medicines used to lower blood pressure and diuretics (medicines used to remove excess water from the body, "water tablets") can interact with SGLT2 inhibitors. This is because SGLT2 inhibitors can also lower blood pressure by removing excess water from the body. Your doctor, pharmacist or nurse may need to adjust doses of these medicines.
- Your doctor may want to reduce the dose of other diabetes medicines, such as insulin or gliclazide. This is to avoid your blood sugar levels from getting too low.
- Other medicines may be affected including rifampicin, St John's wort, carbamazepine, phenytoin, ritonavir, digoxin, and medicines to prevent blood clotting. Seek medical advice if you take these.

Should I stop taking the SGLT2 inhibitor tablets if I become unwell?

If you are unwell (vomiting, diarrhoea, fever, sweats, and shaking), you should stop SGLT2 inhibitors. You should also stop taking the medicines listed below – speak to your doctor if you have any questions or concerns.

- **ACE inhibitors and ARBs** (medicine for blood pressure and heart conditions) - these medicines end with 'pril' or 'artan'. For example, ramipril, lisinopril, losartan.
- **Diuretics (water tablets)** - e.g., furosemide, bendroflumethiazide, bumetanide, spirolonolactone.
- **Some diabetes medications** - Metformin; medicines ending with 'flozin'; GLP1 analogues (which are medicines ending with 'tide'). **Do not stop insulin** but monitor blood sugar levels closely; you may need to alter the dose of your insulin.
- **NSAIDs** (anti-inflammatory painkillers) - e.g., ibuprofen, naproxen, diclofenac.

Restart your medicines once you are better. This is usually after 1 - 2 days of normal eating and drinking. When you restart the medicines, do not take extra for the doses you have missed. If you have diabetes, check your blood glucose levels more often.

If you are unwell, and unable to eat and drink normally:

- Drink plenty of liquids to avoid dehydration.
- Have your blood ketone measured (by GP or in hospital). If blood ketones are greater than 0.6mmol/L, seek urgent medical advice.

If you are unwell for longer than 48 hours, get medical advice.

Should I stop taking these tablets if I am not eating?

If you are **not eating or drinking before having surgery**, stop the SGLT2 inhibitor. If you are **fasting**, stop the SGLT2 inhibitor.

Are they safe in pregnancy or breastfeeding?

Do not take SGLT2 inhibitors when pregnant or breastfeeding. You should **not** take these medicines if you might become pregnant. Speak to your doctor if you are planning to get pregnant.

Possible side effect	Action for patient
Low blood sugar level (hypoglycaemia). This usually only happens if SGLT2 inhibitors are used together with other diabetes medicines. Your doctor may need to reduce other diabetes medicines. Never stop insulin altogether if you are already on this.	Monitor your blood sugar levels if you are diabetic. You may need to do this more frequently than usual when you start the medication.
Dehydration. These medicines increase the amount of urine you make and may cause dehydration.	You may need to increase the amount of fluid you drink, as per your doctor's advice.
Genital infections. There is an increased risk of infection, such as thrush around the vagina or penis. This is easily treated. A pharmacist or doctor can give you advice if you have genital irritation or itching.	Wash your genital area with warm water. Use a non-perfumed soap. Do not wear tight underwear. If you have severe pain, worsening redness, widespread swelling in the groin/genital area, then you need to seek urgent medical help.
Do you have an active foot problem (e.g. infected ulcer, circulation problem causing pain at rest or a change in skin colour)?	Stop the SGLT2 inhibitor until you speak to a doctor.
Increase of acid in the blood. SGLT2 inhibitors may cause acids (ketones) to build up in the blood. This is called diabetic ketoacidosis (DKA) and is rare. It can happen even when your blood sugar level is normal. Do not rely on urine ketone tests. Symptoms include abdominal pain, nausea, vomiting, tiredness, fast breathing, dizziness, and thirst.	If you have any? of these symptoms, stop taking the SGLT2 inhibitor and get urgent medical advice. You may need admission to hospital.
The risk of DKA is increased if you don't eat for long periods, do excessive exercise, are dehydrated, reduce your insulin too quickly, drink excessive alcohol, or are unwell. Please do not start a new very low carbohydrate diet ("ketogenic diet") as this can increase the ketones in the blood.	

