

Information for patients, relatives and carers about  
**Getting the most from your sodium  
glucose co- transporter-2 inhibitors  
(SGLT-2i) - for people with diabetes**

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## Introduction

This leaflet will give you information about sodium glucose co-transporter- 2 inhibitors (SGLT2 inhibitors) and answers some of the questions that you or those who care for you may have about these medicines. It is not meant to replace the discussion between you and your medical team but aims to help you understand more about what we discuss.

## What are SGLT2 inhibitors and who benefits from using them?

At your recent kidney clinic appointment, we talked about SGLT2 inhibitors, also known as gliflozins or flozins. Examples are canagliflozin (Invokana), dapagliflozin (Forxiga), and empagliflozin (Jardiance). These medicines were first made for diabetes but also help protect kidneys and heart, reduce the risk of kidney function worsening, and lower the risk of heart failure and heart attacks.

## Are there any side effects?

### Common:

**Hypoglycaemia (low blood glucose)** - this usually only occurs if SGLT-2 inhibitors are used in combination with certain other diabetes medicines and your doctor may therefore need to reduce your other diabetes medicines. **However, never stop insulin altogether if you are already on this.**

**Fungal genital infections** - As these medicines increase the sugar in your urine, there is an increased risk of certain infections, such as thrush around the vagina and penis. However, we can easily treat this (usually with a cream) and a pharmacist or your GP can give you advice if irritation or itching occurs in these areas. Washing your genital area with warm water, using non-perfumed soap and avoiding wearing tight underwear will reduce the risk of infection. If you have thrush, you should stop the flozin medicine temporarily until

this is treated. You may need to stop this permanently if you experience repeated episodes of thrush.

### **Uncommon:**

**An increase of acid in the blood** - SGLT-2 inhibitors may cause certain acids (ketones) to build up in your blood. This is called **diabetic ketoacidosis** (DKA). This is a rare event but can happen even when your blood glucose is normal. Symptoms include nausea and vomiting, abdominal pain, rapid breathing, and dehydration e.g. dizziness and thirst. Your breath smells like pear-drops or nail varnish remover. The risk of DKA is increased if you do not eat for long periods, become dehydrated, reduce your insulin dose too quickly, drink excessive alcohol or are unwell.

Please get medical advice before starting any new diet particularly very low carbohydrate diets (also called ketogenic diets) as these can increase the ketones in the blood. DKA is a serious health condition. If you believe you are developing symptoms of DKA then please get urgent medical assessment reporting your concern and the medication you are taking.

**Foot disease leading to toe or other amputation** - if you have been told you have an “at risk foot” you should clarify with your doctor if you should start or remain on one of these medicines. If you have an active foot ulcer or problem with the blood supply in your leg you should stop these medicines.

### **Extremely rare:**

**Fournier’s gangrene** - this is an extremely rare infection in the groin area requiring urgent medical attention. The main symptom to be aware of is severe pain on pressing the skin over the groin area. If this develops, stop your SGLT-2 inhibitor and get medical advice.


## **Should I stop taking these tablets if I become unwell?**

You should follow the “sick day guidance” with these medications (please see below). You should not take the if you

are unwell especially if you are vomiting, have diarrhoea or fever. You should also miss out your flozin if you are fasting (e.g. before a planned surgery). You can restart them when you are better, however if you remain unwell (e.g. longer than 48 hours), we advise you to get medical advice from your GP, Pharmacist or NHS 24 on ☎ 111.

You may need to stop or change some of your other medications if you become unwell, especially those relating to your diabetes treatment. Please refer to information you may have received about your other diabetes treatments, or contact the person treating your diabetes, if you are not sure.

## Sick day rules for 'flozin' medicines



<b>01</b> Stop your 'flozin' medicine if you are unwell with diarrhoea, vomiting or are unable to eat and or drink	<b>02</b> Stop your 'flozin' medicine 2 days before major surgery	<b>03</b> Restart your 'flozin' medicine when you are feeling better and you are eating and drinking again	<b>04</b> If you plan on changing your diet speak to your doctor first – low carbohydrate diets are not advised on these medications	<b>05</b> If you are in doubt, contact your pharmacist, doctor or nurse
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## Further Information

If you have any questions, please ask your Renal Team.