

SGLT 2 Inhibitors: Information for patients with heart failure

This leaflet provides a summary of important information on SGLT-2 inhibitors to patients who have been prescribed it for heart failure. It is designed to help the discussion with your doctor, specialist nurse or pharmacist about the benefits and side effects. If you have any questions, please contact us.

What is an SGLT-2 inhibitor?

Sodium glucose co-transporter-2 (SGLT-2) inhibitors are medicines commonly used in the management of diabetes. Recently they have been approved for use in people with heart failure with or without diabetes. They have been shown to:

- reduce symptoms of heart failure such as breathlessness
- reduce the risk of being admitted to hospital due to heart failure
- protect the kidneys
- reduce the risk of heart attacks and strokes

How do SGLT-2 inhibitors work?

These medicines work by blocking the SGLT-2 protein in your kidney which allows your kidneys to remove excess water, salt (sodium) and sugars (glucose) from the body via your urine.

Are there any side effects?

SGLT-2 inhibitors are generally well tolerated and serious side effects are very rare. A more common side effect is the increased risk of infection such as water infections and infections around the vagina and penis. This is related to how the medicines work as they increase the glucose in your urine.

The best way to prevent genital and water infections is good hygiene and keeping well hydrated. If you experience any symptoms relating to these infections, please speak to your GP or pharmacist to receive appropriate treatment.

Genital infections (thrush) of your penis or vagina

Symptoms may include irritation and itching in the genital region, or unusual discharge or odour. This can be treated with an anti-fungal cream.

Water infections

The following symptoms may mean you have developed a urinary tract infection that requires treatment:

- Burning feeling when passing urine
- Urinating more often
- Pain in the lower part of the abdomen

Rarely, a water infection can become serious, giving you symptoms and signs such as a fever and/or chills, pain in your back and sides, or blood in your urine. If this is the case, seek medical attention immediately.

Dehydration

SGLT-2 inhibitors can make you **urinate more often** which can make you dehydrated. The signs and symptoms of dehydration are feeling thirstier, having a dry or sticky mouth, having a fast heartbeat or passing little or no urine. The best way to prevent this is by drinking plenty of water and keeping well hydrated. If you have been asked to keep to a fluid allowance by your heart failure team, it is important you stick to this.

Are there any serious side effects?

The following two side effects are extremely rare, but it is important to be aware of them.

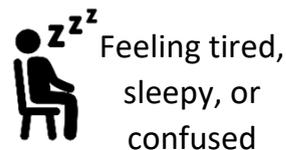
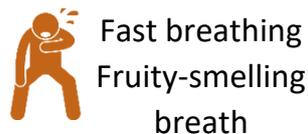
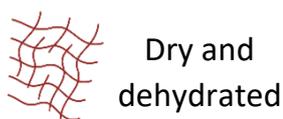
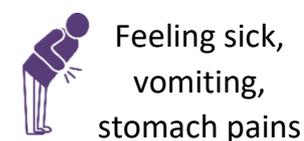
Diabetic ketoacidosis (DKA)

If you are unwell while taking an SGLT-2 inhibitor regularly, you may have a very small risk of developing DKA (an increase of acid in the blood) **if** you have diabetes. This is a serious and sometimes life-threatening issue, but you can reduce this risk by following some simple sick day rules below when you are unwell.

Sick day rules:

- ❖ It is best practice to use good sick day guidance with these drugs. You should stop them if unwell especially in the presence of vomiting, diarrhoea or fever.
- ❖ If you have diabetes and have access to blood sugar monitoring at home, increase the frequency of checking to 2-4 hourly. If they run too high or low, seek medical advice. **Never stop taking your insulin** – you may have to adjust your dose
- ❖ Stay well-hydrated – at least 100mls (half a cup) of water every hour
- ❖ Do not fast
- ❖ If you cannot eat or drink, or are vomiting, replace your meals with sugary drinks or ice cream
- ❖ Temporarily stop taking the medicines below, if you are unsure or have any questions please seek medical advice:
 - blood pressure pills – e.g. ramipril, lisinopril, losartan or medicines ending with artan or pril
 - diuretics (water tablets) - e.g. furosemide, bumetanide, spironolactone
 - diabetes medications - e.g. metformin, medicines ending with ‘flozin’ such as dapagliflozin or empagliflozin
- ❖ Restart your medicines as soon as you are well and eating, drinking normally.
- ❖ Please seek medical advice if you continue to feel unwell after 48 hours.

What symptoms might you get with DKA?



If you have any of these symptoms you must stop taking your SGLT-2 inhibitor and seek medical attention **immediately**

Necrotising fasciitis (Fournier's gangrene)

This is also an extremely rare but serious bacterial infection affecting the tissue under the genitals and surrounding area. The symptoms to look out for are pain, tenderness, redness and swelling of the genitals or the area between the genitals and anus, as well as having a fever and feeling generally unwell.

If you have any of these symptoms you must stop taking your SGLT-2 inhibitor and seek medical attention **immediately**.

Even if you experience mild side effects, or anything not mentioned in this booklet, it is important that you discuss this with your doctor, pharmacist or nurse. You can also report side effects directly to: <https://yellowcard.mhra.gov.uk>

Useful contacts:

<i>Name</i>	<i>Number</i>	<i>E-mail</i>