



Sodium-glucose cotransporter-2 inhibitors (SGLT2 inhibitors) for the treatment of heart failure and kidney disease – Patient Information

Title:	Sodium-glucose cotransporter-2 inhibitors (SGLT2 inhibitors) for the treatment of heart failure and kidney disease – patient information
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Sodium-glucose cotransporter-2 inhibitors (SGLT2 inhibitors) for the treatment of heart failure and kidney disease- Patient Information

Dapagliflozin (also known by its trade name Forxiga®). Empagliflozin (also known by its trade name Jardiance®)

See also the patient information leaflet in your box of tablets.

Why are they used?

SGLT2 inhibitors (SGLT2is) have been used to treat diabetes for several years. They have now been shown to be effective in reducing the worsening of heart failure and kidney disease for everyone, whether or not they have diabetes.

How do they work?

When the SGLT2I medicine removes sugar from the urine, it also flushes out salt and fluid, thereby reducing the workload on the heart and kidneys.

Side effects

As for all medicines, there are possible side effects. Your doctor or nurse will discuss these with you and advise you when you may need to seek further help.

Dehydration

For some people the SGLT2i medicine can make their current diuretic (water) tablets more effective. If you have symptoms of feeling thirsty with a dry mouth, or are passing less urine than usual, please discuss with your doctor or nurse about possibly adjusting the dose of your diuretic tablets. Signs of dehydration include lower than normal blood pressure, fast heartbeat, unusually dry or sticky mouth, feeling more thirsty than usual, sleepy, or tired and passing little or no urine.

Fungal infections

You will be slightly more prone to fungal genital infections such as thrush. If you get symptoms a pharmacist will usually be able to recommend treatment (e.g. a cream or similar). These are available over the counter.

Urine infections

It is possible that you may be very slightly more prone to getting urine infections. Although water (urinary) infections are common, severe infections are rare. Signs include: fever and/or chills, a burning sensation when passing urine, pain in your back or side and blood in your urine.

Kidney function test results

The overall effect of the SGLT2i medicine is to protect your kidney function, but as part of this effect the test result (estimated GFR - that is commonly used to monitor kidney function) will be slightly reduced. This is not concerning and is not a reason to stop or avoid the medication.

Low blood glucose (hypoglycaemia)

For people who have type 2 diabetes, low blood glucose may occur if they are also taking other blood glucose lowering medicines (e.g. insulin, gliclazide) with the SGLT2i medicine. Your doctor or nurse will advise you on any dose adjustments if required.

Other less common side effects:

Extremely rarely (less than 1 in 10,000) people can develop a severe infection of the genital area. If you become unwell with unusual swelling or redness in this area and a high temperature, please seek urgent medical advice.

Back pain, dizziness and rash are also known to occur in some people. Further information about side effects is available in the leaflet in your box of tablets.

What to do if you are unwell?

For all people taking these medications

If you are too unwell to eat and drink, **stop** taking the medicine until you have recovered, and you are eating and drinking normally.

For people who have type 2 diabetes

The SGLT2i medicine could increase your risk of developing diabetic ketoacidosis (DKA). This can occur at any time but is more likely when you are unwell for another reason such as an infection, stomach upset or operation.

Signs of DKA include thirst, nausea, vomiting, rapid weight loss, deep sighing breaths, drowsiness, sweet-smelling breath (like pear drops or acetone).

If you have signs of DKA, **stop** taking the medicine and contact your doctor, NHS 111 or your nearest hospital straight away. Please note that you can develop DKA even with a normal blood sugar result, and the condition can only be identified by checking the level of ketones in the blood, using a finger prick test at your GP or hospital.

If you have type 2 diabetes, 'sick day rules' should be followed when you have an illness. If you are too unwell to eat and drink, stop taking the SGLT2i until you have recovered and then speak with your GP or nurse about the appropriate time to restart the medicine. Your GP or nurse will also advise about continuing or stopping other medicine for your diabetes during your illness.

The expected benefits of the SGLT2i medicine are much greater than the small increased DKA risk.

After taking an SGLT2i medicine, more than half of people with heart failure are expected to feel better and have less swelling or breathlessness. Approximately 35 people need to be treated for a year to prevent one hospital admission due to heart failure but only approximately only 1 in 500 people treated with an SGLT2i medicine will get DKA.

Your doctor may advise you to use a "sick day rules" card which can be found via this link.

<https://ihub.scot/improvement-programmes/scottish-patient-safety-programme-spsp/spsp-programmes-of-work/spsp-medicines-collaborative/high-risk-situations-involving-medicines/medicines-sick-day-rules-card/>

We do not think people without type 2 diabetes are at risk of developing diabetic ketoacidosis, but stopping this medication when you are unwell is still sensible.

Additional advice

You may also be advised to temporarily stop your SGLT2i medicine

- if you are admitted to hospital for planned treatment or as an emergency.
- if you are planning pregnancy or are pregnant or breast feeding.

You may be advised to permanently stop your SGLT2i medicine

- if you are following very restricted diets e.g. very low calorie or carbohydrate diets.

Please seek advice.