

# Patient Information: SGLT2 Inhibitors - Medication for type 2 diabetes

Type 2 diabetes is managed using a combination of lifestyle changes and medication. Sodium- glucose cotransporter 2 (SGLT2) inhibitors are a new class of diabetes medication for people with type 2 diabetes. SGLT2 inhibitors can be added to other diabetes medication and/or insulin to lower blood glucose, blood pressure and weight.

In people with type 2 diabetes and cardiovascular (heart and blood vessel) disease, SGLT2 inhibitors have been shown to also reduce the likelihood of death, heart failure, kidney function deterioration and hospitalisation.

SGLT2 inhibitors increase the amount of glucose passed in urine which in turn lowers blood glucose levels.

Special care is needed to avoid unwanted drug interactions and side effects. Together you and your doctor will choose the best medications for you.

## SGLT2 inhibitors currently available in Australia

SGLT2 inhibitors are prescribed as either a single medication or in combination with other diabetes medications. Currently available SGLT2 inhibitors are:

- Dapagliflozin (Forxiga, Xigduo, Qtern)
- Empagliflozin (Jardiance, Jardiamet, Glyxambi)

## What are the unwanted medication interactions and side effects?

Common side effects include:

- genital infections (thrush) which can very occasionally be severe
- increased thirst
- passing larger amounts of urine and passing urine more frequently

Less common side – effects include:

- urinary tract infection
- low blood pressure
- nausea or constipation

Rare but potentially serious side-effect

- diabetic ketoacidosis.

## What should you do if you take a SGLT2 inhibitor?

- Tell your health professional about all the medications you are taking - including prescription, over the counter and complementary medicines (herbal, 'natural', vitamins and minerals) - as they may interact with diabetes medicines and affect your blood glucose levels.
- When seeking urgent medical attention, it is extremely important to tell your health care professional that you are taking a SGLT2 inhibitor and prompt them to test your blood glucose and ketone level.
- Remember you may have ketones even if your blood glucose is within or close to your target.
- Only take the SGLT2 inhibitor dose as prescribed by your doctor.
- SGLT2 inhibitors can lower your blood pressure.
- Stop taking your SGLT2 when:
  - unwell with an infection or illness, particularly if nausea or vomiting makes you unable to eat or drink
  - fasting for surgery or a procedure (to be stopped 3 days before surgery or a procedure)
  - consuming a very low carbohydrate diet (less than 60g of carbohydrate per day).
- Restart your SGLT2 when:
  - you are well and eating/drinking normally
  - in people co-prescribed insulin you can generally restart your SGLT2 when you restart insulin.

## What is diabetic ketoacidosis (DKA)?

DKA is a serious complication of diabetes mellitus and needs urgent medical attention.

DKA most commonly occurs in type 1 diabetes but occasionally occurs in people with type 2 diabetes, for example if the person is taking a SGLT2 Inhibitor and has a severe infection, illness or is undergoing surgery.

DKA is most commonly diagnosed by high blood glucose and/or ketones. If the person is taking an SGLT2 inhibitor, DKA can occur even the blood glucose may not be high or be normal.

## What are the symptoms of diabetic ketoacidosis?

Symptoms of diabetic ketoacidosis include:

- nausea and/or vomiting
- abdominal pain
- dehydration (symptoms of dehydration include dry tongue, dry lips, drowsiness and dizziness)
- blurred vision
- fever
- sweet smell of ketones on breath
- shortness and/or difficulty in breathing

If you experience any of these symptoms, seek emergency medical attention.

## How and why are ketones tested?

Ketones can be tested using a finger prick blood or urine sample. If your doctor feels you may be prone to developing ketones you may be asked to monitor these levels yourself. Early detection of ketones may allow you to prevent ketoacidosis, generally by eating and drinking, giving yourself extra insulin and temporarily stopping the SGLT2 inhibitor. Please consult your doctor or present to an emergency department if the ketone level is greater than 1mmol/L or there are lower levels but you are feeling particularly unwell.

## How is diabetic ketoacidosis treated?

The treatment of established diabetic ketoacidosis usually requires a hospital admission and involves:

- an intravenous infusion (drip) for re-hydration and to provide extra insulin.
- frequent blood glucose and ketone testing to guide your recovery.

This factsheet only provides brief information. Ask your health professional to download the Consumer Medicines Information at [http://www.nps.org.au/search\\_by\\_medicine\\_name](http://www.nps.org.au/search_by_medicine_name).

## For more information

### SALHN Diabetes Services

Out of Hospital Diabetes Service GP Plus Noarlunga Telephone: (08) 81649111 option 1  
 Out of Hospital Diabetes Services GP Plus Marion Telephone: (08) 74258200 option1  
 Flinders Medical Centre SALHN Diabetes Service Telephone: (08) 82048908



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