SGLT2 Inhibitors - Medication for type 2 diabetes

Type 2 diabetes is managed using a combination of lifestyle changes and medication. Sodium Glucose Co Transport 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.

SGLT2 Inhibitors reduce glucose reabsorption by the kidney, increasing 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

Currently SGLT2 Inhibitors are prescribed as either a single medication or in combination with other diabetes medications and these are:

> Dapagliflozin (Forxiga, Xigduo, Qtern)
> Empagliflozin (Jardiance, Jardiamet, Glyxambi).

What are the unwanted medication interactions and side effects?

Common side effects include:

> genital or urinary tract infections
> low blood pressure
> passing larger amounts of urine and passing urine more frequently
> greater thirst
> nausea or constipation
> a very rare but potentially serious side effect of SGLT2 Inhibitors is diabetic ketoacidosis.

What should you do if you take an SGLT2?

> Tell your health professional about all the medication 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
  > fasting for surgery or a procedure
  > unable to eat and/or drink (eg nausea, vomiting)
  > on a very low carbohydrate diet (less than 60g of carbohydrate per day)
  > when temporarily stopping insulin.

> Restart your SGLT2 when:
  > you are well and eating/drinking normally
  > in people co-prescribed insulin you can 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, the blood glucose may not be high and can 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. Call 000 and present to the emergency department.

How are ketones tested?
Ketones can be tested using a finger prick blood sample.

How is diabetic ketoacidosis treated?
The treatment of 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.

For more information
CHSA Diabetes Service
Country Health SA LHN
PO Box 287, Rundle Mall
ADELAIDE SA 5000
Telephone: (08) 8226 7168
www.chsa-diabetes.org.au