**Advice for Primary Care Health Professionals for Patients Prescribed SGLT2 Inhibitors**

There are currently three SGLT2 inhibitors authorised in the EU (dapagliflozin, canagliflozin, and empagliflozin) and they are available alone under the following trade names: Forxiga, Invokana, Jardiance, or in combination with Metformin under the following trade names: Xigduo, Vokanamet and Synjardy.

Diabetic ketoacidosis (DKA) is a serious complication of diabetes caused by low insulin levels. Rare cases of this condition, including life-threatening ones, have occurred in patients taking SGLT2 inhibitors for type 2 diabetes and a number of these cases have been atypical, with patients not having blood glucose levels as high as expected i.e. euglycaemic DKA (euDKA).

An atypical presentation of diabetic ketoacidosis can delay diagnosis and treatment. Healthcare professionals should therefore consider the possibility of ketoacidosis in patients taking SGLT2 inhibitors who have symptoms consistent with the condition even if blood glucose levels are not high.

Health care professionals should hold a high level of suspicion of DKA in patients prescribed SGLT2 Inhibitors. They should exercise caution in patients with risk factors for ketoacidosis. These include low reserve of insulin-secreting cells, conditions that restrict food intake or can lead to severe dehydration, a sudden reduction in insulin or an increased requirement for insulin due to illness, surgery or alcohol abuse.

Health care professionals should ensure that patients are aware of the risk and symptoms of DKA. They should know to report any of the following immediately:

* Rapid weight loss,
* Nausea or vomiting
* Stomach pain
* Excessive thirst
* Fast and deep breathing
* Confusion
* Unusual sleepiness
* Tiredness
* Sweet smell to the breath
* Sweet or metallic taste in the mouth
* Different odour to urine or sweat

If DKA is suspected or confirmed, SGLT2 Inhibitor treatment should be stopped immediately and should not be re-started unless another cause for the ketoacidosis is identified and resolved.

Capillary blood sampling for ketone testing is advisable with the Abbott Medisence Optium meter.

 **<1.0mmol/L** Normal, continue to monitor

 **>1.0mmol/L** Can increase rapidly, consider need for insulin therapy if not already prescribed and hospitalisation

 **>3.0 – 4.0mmol/L** DKA, hospitalise

ECAD, March, 2016 adapted from SGLT2 inhibitors: The European Medicines Agency (EMA), February, 2016 [www.ema.europa.eu](http://www.ema.europa.eu) [Accessed online22nd February, 2016]

(ECAD, 2016)