

Navigate Risk of Ketoacidosis Due to an SGLT2 Inhibitor

You'll need to know **how to manage risk of ketoacidosis due to SGLT2 inhibitors (dapagliflozin, etc)**...as their use increases.

Ketoacidosis due to an SGLT2 inhibitor (SGLT2i) is rare...occurring in less than 0.1% of patients.

But it can be life-threatening. And it's easy to miss, since patients are often "euglycemic"...with normal or only slightly elevated blood glucose.

Be aware, all SGLT2i product labels warn about ketoacidosis...and there's no proof that any one is safer.

Help navigate risk of ketoacidosis with these meds.

Steer away from starting any SGLT2i for patients at very high risk of ketoacidosis. For example, avoid an SGLT2i with type 1 diabetes, even if there's another compelling indication (heart failure, etc).

Educate patients about possible triggers of ketoacidosis with an SGLT2i, such as fasting or very-low-carb diets (ketogenic, etc)...infection...reducing insulin doses...or surgery.

Share practical tips to limit risk. For example, provide a sick day management plan. Advise holding an SGLT2i with vomiting or severe diarrhea...and restarting when patients resume eating and drinking.

Counsel to avoid a very-low-carb diet while taking an SGLT2i.

Also explain that patients will need to stop an SGLT2i 3 to 4 days before planned surgery and hold until oral intake is back to normal.

Don't rely on glucose checks or urine ketones to rule out ketoacidosis due to an SGLT2i.

That's because glucose may be just slightly elevated. And urine ketone strips aren't very sensitive...and may miss early DKA.

Emphasize staying alert for ketoacidosis symptoms, such as fruity-scented breath...nausea...shortness of breath...or unusual fatigue.

Refer symptomatic patients for prompt evaluation. They will need to stop the SGLT2i and have labs checked...such as an anion gap, bicarb, and serum ketones.

Expect euglycemic ketoacidosis to be treated similarly to other DKA cases. Get our resource, *Hyperglycemia in the Hospital*, for specifics.

Anticipate individualized decisions about restarting an SGLT2i once ketoacidosis resolves.

For instance, lean toward restarting the SGLT2i for a patient with a compelling indication (heart failure, etc). But lean away from restarting for a patient with recurrent DKA while on an SGLT2i.

Key References:

- Selwyn, J.; Pichardo-Lowden, AR. Managing Hospitalized Patients Taking SGLT2 Inhibitors: Reducing the Risk of Euglycemic Diabetic Ketoacidosis. *Diabetology*. 2023;4(1):86-92.
- Mehta PB, Robinson A, Burkhardt D, Rushakoff RJ. Inpatient Perioperative Euglycemic Diabetic Ketoacidosis Due to Sodium-Glucose Cotransporter-2 Inhibitors - Lessons From a Case Series and Strategies to Decrease Incidence. *Endocr Pract*. 2022 Sep;28(9):884-888.

Cite this document as follows: Article, Navigate Risk of Ketoacidosis Due to an SGLT2 Inhibitor, Hospital Pharmacist's Letter, December 2023

The content of this article is provided for educational and informational purposes only, and is not a substitute for the advice, opinion or diagnosis of a trained medical professional. If your organization is interested in an enterprise subscription, email sales@trchealthcare.com.

© 2024 Therapeutic Research Center (TRC). TRC and Hospital Pharmacist's Letter and the associated logo(s) are trademarks of Therapeutic Research Center. All Rights Reserved.

- Patel K, Nair A. A Literature Review of the Therapeutic Perspectives of Sodium-Glucose Cotransporter-2 (SGLT2) Inhibitor-Induced Euglycemic Diabetic Ketoacidosis. Cureus. 2022 Sep 27;14(9):e29652.
- ElSayed NA, Aleppo G, Aroda VR, et al. 16. Diabetes Care in the Hospital: Standards of Care in Diabetes-2023. Diabetes Care. 2023 Jan 1;46(Suppl 1):S267-S278.

Pharmacist's Letter. December 2023, No. 391203

Cite this document as follows: Article, Navigate Risk of Ketoacidosis Due to an SGLT2 Inhibitor, Hospital Pharmacist's Letter, December 2023

The content of this article is provided for educational and informational purposes only, and is not a substitute for the advice, opinion or diagnosis of a trained medical professional. If your organization is interested in an enterprise subscription, email sales@trchealthcare.com.

© 2024 Therapeutic Research Center (TRC). TRC and Hospital Pharmacist's Letter and the associated logo(s) are trademarks of Therapeutic Research Center. All Rights Reserved.