

UCMC Solid Organ Transplant

Guidelines for Kidney Transplant Candidates on GLP-1 Agonists and/or SGLT-2 Inhibitors

Medication Class Examples	Discontinue and/or Transition to an alternate therapy at Listing?	Perioperative concerns	Management
<p><u>GLP-1 Agonists or GIP/GLP-1 Agonists</u></p> <ul style="list-style-type: none"> • Exenatide (Byetta, Bydureon) • Lixisenatide (Adlyxine) • Liraglutide (Victoza, Saxenda) • Dulaglutide (Trulicity) • Semaglutide (Ozempic, Wegovy, Rybelsus, etc.) • Insulin Degludec and Liraglutide (Xultophy) • Insulin Glargine and Lixisenatide (Soliqua) • Tirzepatide (Mounjaro, Zepbound) 	<p>No for DDKT, but consider for LDKT¹⁻³</p>	<p>Increased aspiration risk during surgery due to delayed gastric emptying</p>	<ul style="list-style-type: none"> • Make patient NPO immediately when called in for transplant surgery • Treat as a full stomach for anesthesia induction
<p><u>SGLT-2 Inhibitors</u></p> <ul style="list-style-type: none"> • Bexagliflozin (Brenzavvy) • Canagliflozin (Invokana, Invokamet, Invokamet XR) • Dapagliflozin (Farxiga, Xigduo, Xigduo XR, Qtern, Qternmet XR) • Empagliflozin (Jardiance, Synjardy, Synjardy XR, Glyxambi, Trijardy XR) • Ertugliflozin (Steglatro, Segluromet, Steglujan) 	<p>No for DDKT, but consider for LDKT^{1, 4}</p>	<p>Euglycemic DKA</p>	<ul style="list-style-type: none"> • Postoperative monitoring for euglycemic DKA (metabolic acidosis with anion gap) and institute dextrose/insulin as needed⁵

¹ Process for discontinuation/transition to a different drug to be individualized per candidate situation and to be discussed by the transplant anesthesiologist, surgeon, nephrologist, and coordinator. Need to consider risk/benefit of stopping therapy especially in candidates with glycemic control difficulty or heart failure.

² For candidates of a scheduled living donor kidney transplant (LDKT) discontinue therapy 1 week prior to transplant surgery. Highly recommend holding medication preoperatively if the patient has known gastroparesis.

³ Clear liquid diet day prior to procedure. Strict NPO (all solids and liquids) for 8 hrs prior to procedure. OK for sips of water w medications.

⁴ For candidates of a scheduled living donor kidney transplant (LDKT) discontinue therapy 72 hours prior to transplant surgery.

⁵ Post-transplant: delay restarting SGLT-2 inhibitors by at least 3 months and defer to outpatient provider.

References:

1. <https://www.asahq.org/about-asa/newsroom/news-releases/2023/06/american-society-of-anesthesiologists-consensus-based-guidance-on-preoperative>. American Society of Anesthesiologists Consensus-Based Guidance on Preoperative Management of Patients (Adults and Children) on Glucagon-Like Peptide-1 (GLP-1) Receptor Agonists
2. Perioperative Management of Oral Glucose-lowering Drugs in the Patient with Type 2 Diabetes. *Anesthesiology* August 2020, Vol. 133, 430–438.