

Medications for Type 2 Diabetes

Maine Independent Clinical Information Service, 2023



SGLT-2s (sodium-glucose co-transporter-2 inhibitors)

FDA approved in 2013-4 **NICKNAME:** the “flozins”

MECHANISM OF ACTION: works in the kidney to increase urinary glucose excretion by decreasing glucose resorption

BENEFITS (not all drugs in class have data on all benefits, see individual drug information): decreases mortality, decreases MACE (major adverse cardiac events), slows progression of CKD, decreases hospitalization in HFrEF (heart failure, EF<40%), benefit in HFpEF (heart failure, EF>40%), lowers blood pressure

INCREASED RISK FACTORS FOR DKA: acute serious illness, surgery & colonoscopy (hold 3d prior), low carbohydrate diet (i.e. keto), fasting, sudden decrease in insulin dose, hx of DKA, alcohol use, type 1 DM, age >65

CONTRAINDICATIONS: severe renal or hepatic impairment (check individual drug dosing and GFR parameters)

DRUG INTERACTIONS: monitor diuretics and anti-hypertensives, insulin/sulfonylurea-may need decreased dose due to risk of hypoglycemia, chronic NSAIDs-risk of AKI if hypovolemic

MONITORING: counsel patients to significantly increase water intake; caution regarding volume status, blood pressure; check creatinine, sodium, and potassium at baseline and 4 weeks after initiation (expect a mild decrease in GFR, stop if GFR increases 30%); after a period of abstinence, wait 4-6 weeks before increasing dose

OTHER FDA APPROVED USES: Heart failure, chronic kidney disease

SIDE EFFECTS:

Common: increased urinary frequency and volume (resulting in thirst, hypovolemia, acute kidney injury, orthostatic hypotension), infection (genital mycotic, UTI), DKA-euglycemic

Rare: Fournier's gangrene, acute pancreatitis, increased fracture (canagliflozin), amputation (canagliflozin)



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MICISMaine.org
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Sources:

- VA Clinician's Guide (www.pbm.va.gov/PBM/AcademicDetailingService/Documents/508/1B10-1402_Type2DiabetesCliniciansGuide_508Conformant.pdf)
- Alosa Health Diabetes module (alosahealth.org/wp-content/uploads/2022/05/RefCard_Diabetes_5.22_final.pdf)
- RxFiles Drug Comparison Charts, 13th Ed. (www.rxfiles.ca/RxFiles/home.aspx)