

Sodium–glucose cotransporter-2 inhibitors in patients without diabetes

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1 In patients without diabetes, sodium–glucose cotransporter-2 (SGLT2) inhibitors (or “flozins”) should be considered for moderate chronic kidney disease or clinical heart failure regardless of ejection fraction

Moderate chronic kidney disease includes an estimated glomerular filtration rate (eGFR) of less than 45 mL/min/1.73 m², regardless of urinary albumin-to-creatinine ratio (uACR) or eGFR of 45–90 mL/min/1.73 m² with uACR higher than 25 mg/mmol.^{1–3} Sodium–glucose cotransporter-2 inhibitors reduce the relative risk of kidney disease progression by 37% and cardiovascular death or hospital admission for heart failure by 23%, with similar effects in patients with or without diabetes.³

2 Benefits of SGLT2 inhibitors include improved blood pressure, albuminuria and weight loss

Within 12 weeks, systolic blood pressure is reduced by 5 mm Hg, uACR by 30% and weight by 2 kg.⁴

3 Testing eGFR is not required after starting SGLT2 inhibitors except in patients at risk of volume depletion (i.e., orthostatic hypotension, high-dose diuretics)⁵

An acute 10%–30% reduction in eGFR occurs in the first month after starting SGLT2 inhibitors and is not cause for concern.⁵ Study patients who were prescribed SGLT2 inhibitors were also taking standard-of-care medications including angiotensin-converting enzyme inhibitors or angiotensin receptor blockers.

4 Women are 2–3 times more likely than men to have a genital mycotic infection while taking SGLT2 inhibitors

Mycotic (yeast) infection affects 3%–7% of women who take these agents. A previous yeast infection or development of one during treatment are not contraindications to SGLT2 inhibitors. Counselling regarding symptoms, personal hygiene and prescription of single-dose oral fluconazole is recommended.^{1,2}

5 No cases of severe hypoglycemia or euglycemic diabetic ketoacidosis were reported in SGLT2 inhibitor clinical trials that included 5877 patients without diabetes²

Despite initial concerns, a meta-analysis of 10 trials also did not identify an increase in serious urinary tract infections, Fournier gangrene or lower limb amputations.² Withholding of SGLT2 inhibitors is recommended if the patient is fasting or unwell.

References

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