Canadian Cardiovascular Society

Cardiorenal Risk Reduction in Adults: Summary for Healthcare Providers

From the 2022 CCS Guideline for use of GLP-1 Receptor Agonists and SGLT2 Inhibitors for Cardiorenal Risk Reduction in Adults

1 Irrespective of presence or absence of T2D, does your patient have heart failure or CKD?

Ensure documentation of A1C, eGFR, UACR and criteria establishing diagnosis of HF (e.g. physical signs, CXR, echo, BNP etc.)

Integrate use of SGLT2i into management plan in the presence of HF or CKD with UACR > 20 mg/mmol and eGFR ≥ 25 mL/min/1.72m^2.

Lower dose of loop diuretics if patient is euvolemic and lower further if hypovolemia occurs.

2 Does your patient have T2D with ASCVD or T2D with additional risk factors for ASCVD?

Irrespective of A1C, try to integrate use of GLP-1RA or SGLT2i into management plan.

In patients with high stroke risk or history of TIA/stroke, consider possible initial integration of GLP-1RA into management plan.

If additional A1C lowering is required during follow-up, consider addition of the alternate class (i.e. SGLT2i if GLP-1RA was used first or vice versa).

Before adding either class, consider if patient is on insulin or insulin secretagogues (sulfonylureas, meglitinides).

If not,
add either class as there is low risk of hypoglycemia.

If they are

- There is low risk of hypoglycemia if eGFR is < 45 mL/min/1.73m^2 with addition of SGLT2i.
- If A1C is > 8%, either class can be added with low risk of hypoglycemia.
- If A1C is ≤ 8%, lower the risk of hypoglycemia by reducing insulin secretagogues by 50% or eliminating them and reducing insulin by 10-20% while adding SGLT2i or GLP-1RA. This is a situation when consultation and communication with the T2D management team is paramount.

3 Initial SGLT2i dosing*: canagliflozin 100mg, dapagliflozin 10mg, empagliflozin 10mg daily

4 Initial GLP-1RA dosing*: dulaglutide 0.75 or 1.5mg s.c. weekly; liraglutide 0.6mg s.c. daily (tritrate weekly to 1.2mg and 1.8mg as warranted); semaglutide 0.25mg s.c. weekly (titrate q4wks to 0.5mg and 1mg as warranted); 3mg oral daily (titrate q30 days to 7mg and 14mg daily as warranted).

*Drugs listed alphabetically

ASCVD, atherosclerotic cardiovascular disease; BNP, B-type natriuretic peptide; CKD, chronic kidney disease; CXR, chest x-ray; eGFR, estimated glomerular filtration rate; GLP-1RA, glucagon-like peptide-1 receptor agonists; HF, heart failure; SGLT2i, sodium-glucose cotransporter 2 inhibitors; T2D, type 2 diabetes; UACR, urine albumin-to-creatinine ratio

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