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He Ako Hiringa
Learning Always

Considering the new T2D agents

The two new second-line type 2 diabetes medicines are funded under Special Authority for patients with diabetic kidney disease, known cardiovascular disease or a five-year CVD risk of ≥15 per cent.[1] Criteria also cover early onset T2D and Māori or Pacific peoples with T2D.

But is empagliflozin or dulaglutide better suited to your patient?

Both agents reduce mortality from CVD and slow progression of renal disease, independent of effects on glycaemic control,[2] although dulaglutide is yet to be shown to prevent dialysis or renal death. Empagliflozin, in particular, reduces hospitalisations with heart failure. If HF or diabetic kidney disease is predominant, empagliflozin is preferable; if cerebrovascular disease predominates, dulaglutide is favoured.[3]

Unlike empagliflozin, some data suggest dulaglutide may be effective in primary prevention of CVD.[4] Neither medicine has yet been shown to prevent DKD.[2]

Both agents improve glycaemic control and blood pressure. Dulaglutide likely has a greater effect on reducing HbA1c and weight than empagliflozin, but less effect on BP.[2,3]

Other influences matter

Frailty and short life expectancy are reasons not to initiate either agent.

People with personal or family history of medullary thyroid cancer cannot be prescribed dulaglutide.[5,6] Neither is dulaglutide recommended in people with severe gastrointestinal disease or previous pancreatitis.

Empagliflozin must be used with caution in people at high risk of diabetic ketoacidosis; for those with previous history of DKA, specialist approval is needed.[7] Caution is necessary when there is a high risk of volume depletion – empagliflozin promotes glycosuria and associated osmotic diuresis.[2,7]

If your patient has previous severe or recurrent genitourinary infections, or is likely to be on a low carbohydrate diet and/or have significant alcohol intake, empagliflozin is not for them.[3]

Finally, dulaglutide can be used safely in patients with estimated glomerular filtration rates (eGFR) between 15 and 30mL/min, but empagliflozin cannot.[6,7]

References are available with the online version on AkoHiringa.co.nz

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Empagliflozin or dulaglutide?

When initiating either empagliflozin or dulaglutide, the newly funded second-line type 2 diabetes agents,[1] choice is based primarily on predominant comorbidities, clinical features and tolerability.

But patient preference is an additional factor, with administration route influential. Dulaglutide, a subcutaneous injection, is self-administered weekly. Empagliflozin is a daily oral tablet; combination empagliflozin/metformin is available, which may aid adherence.[2]

Switching from empagliflozin to dulaglutide is straightforward, but vildagliptin, if used, must be stopped.[2] Remember, empagliflozin and dulaglutide can be used together, but one will need self-funding.