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PHARMACOLOGICAL MANAGEMENT OF HEART FAILURE

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A CONSENSUS statement published today by the *Medical Journal of Australia* provides new recommendations for the pharmacological management of heart failure based on studies reported since the publication of the 2018 Australian heart failure guidelines.

Produced by academic group Evidence to Practice, and led by Professor Andrew Sindone (Concord Hospital and the University of Sydney), Associate Professor Carmine de Pasquale (Flinders Medical Centre and Flinders University, and Professor John Atherton (Royal Brisbane and Women's Hospital and the University of Queensland), the consensus statement has broadened the scope of angiotensin receptor neprilysin inhibitor use and sodium–glucose cotransporter 2 (SGLT2) inhibitors in patients with heart failure.

Main recommendations are:

- Use of SGLT2 inhibitors to prevent hospitalisation for heart failure in type 2 diabetes mellitus can be extended to patients with multiple cardiovascular risk factors, albuminuric chronic kidney disease, or atherosclerotic cardiovascular disease;
- New evidence supports the use of a mineralocorticoid receptor antagonist (finerenone) to prevent heart failure in type 2 diabetes mellitus associated with albuminuric chronic kidney disease;
- In addition to renin angiotensin system inhibitors (angiotensin receptor neprilysin inhibitor preferred), beta blockers and mineralocorticoid receptor antagonists, an SGLT2 inhibitor (dapagliflozin or empagliflozin) is recommended in all patients with heart failure with reduced left ventricular ejection fraction (LVEF ≤ 40%) (HFrEF). Lower quality evidence supports these therapies in patients with heart failure with mildly reduced LVEF (41-49%) (HFmrEF);
- A soluble guanylate cyclase stimulator (vericiguat), selective cardiac myosin activator (omecamtiv mecarbil) and, if iron deficient, intravenous iron (ferric carboxymaltose) provide additional benefits in persistent HFrEF;
- An SGLT2 inhibitor (empagliflozin) should be considered in patients with heart failure with preserved LVEF (≥ 50%) (HFpEF).

"Heart failure prevention remains a major health priority, with recent studies reporting that SGLT2 inhibitors and mineralocorticoid receptor antagonist (MRA) can prevent or delay the development of heart failure in patients with diabetic kidney disease," wrote Sindone and colleagues.

"In patients with established HFrEF, there is now strong evidence to support combining either an angiotensin receptor neprilysin inhibitor (ARNI) or angiotensin-converting enzyme (ACE) inhibitor with a beta blocker, MRA and SGLT2 inhibitor in all patients.

"Post hoc analyses support a similar approach in patients with HFmrEF.

"Furthermore, the benefits of SGLT2 inhibitors extend to patients with HFpEF, with this being the first treatment to meet its primary endpoint in an HFpEF randomised controlled trial powered for major clinical outcomes.

"Additional therapies that may be considered in selected patients with HFrEF include vericiguat, omecamtiv mecarbil, and intravenous iron.

However, Sindone and colleagues concluded, evidence gaps remain, "including the need for additional therapies in patients with HFpEF, persistent HFrEF despite optimised therapy, and advanced heart failure".

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