SGLT2 inhibitors reduces hospitalization for heart failure regardless of presence of diabetes

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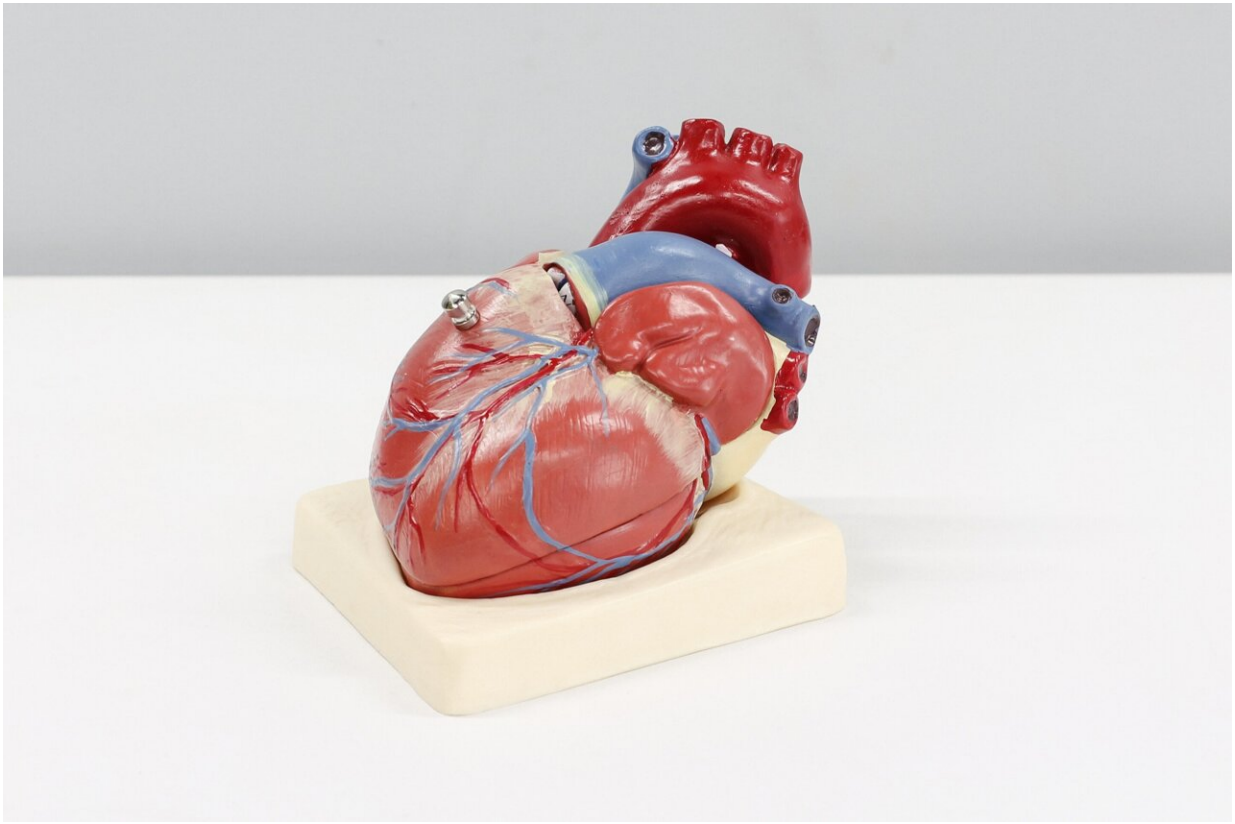

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A systematic review and meta-analysis of randomized control trials (RCTs) found that sodium-glucose cotransporter-2 (SGLT2) inhibitors

reduce hospitalizations and may reduce cardiovascular deaths among people experiencing heart failure regardless of the presence of diabetes. These findings support existing guidelines that recommend SGLT2 inhibitors for preventing incident and worsening heart failure in people with type 2 diabetes, heart failure, or both. The authors caution that treatment with SGLT2 inhibitors should be balanced against the potential harms of increased genital infections. The analysis is published in *Annals of Internal Medicine.*

Many heart failure patients do not receive optimal therapy until they present to a hospital with exacerbations, and patients who receive a diagnosis in the hospital have a twofold increased risk of death and recurrent hospitalization. Previous randomized trials have shown that SGLT2 inhibitors reduce the risks of hospitalization for heart failure and cardiovascular death for people with diabetes. Other trials have also shown that these benefits may extend to patients with heart failure but without diabetes.

Researchers from Sichuan University, Chengdu, China conducted a systemic review and meta-analysis of 8 RCTs totaling 15,022 participants that investigated dapagliflozin, empagliflozin, or canagliflozin to evaluate the effect of these medications in patients with heart failure, regardless of the presence of type 2 diabetes. The authors found that in patients with heart failure—both those with preserved and those with reduced ejection fraction and regardless of the presence of diabetes—SGLT2 inhibitors demonstrated relative benefits in reducing hospitalizations for heart failure and cardiovascular death with high to moderate certainty. However, the authors warn that these reductions were associated with increasing rates of genital infections. They say the amount of potential benefit of SGLT2 inhibitors is determined by both the relative benefit for heart failure hospitalizations and the patient's baseline risk and the relative benefits of SGLT2 inhibitors for reducing heart failure hospitalizations may be greatest within the first year and

may attenuate later.

More information: Xinyu Zou et al, Sodium–Glucose Cotransporter-2 Inhibitors in Patients With Heart Failure, *Annals of Internal Medicine* (2022). DOI: 10.7326/M21-4284. www.acpjournals.org/doi/10.7326/M21-4284

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