the incidence of serious adverse heart failure outcomes in patients with heart failure and a preserved ejection fraction. In contrast, benefits in such patients were reported in a trial with sotagliflozin, but the number of events was too small to allow for a reliable estimate of a treatment effect.

The Empagliflozin Outcome Trial in Patients with Chronic Heart Failure with Preserved Ejection Fraction (EMPEROR-Preserved) was carried out to evaluate the effects of SGLT2 inhibition with empagliflozin on major heart failure outcomes in patients with heart failure and a preserved ejection fraction.

In this double-blind trial, the authors randomly assigned 5988 patients with class II–IV heart failure and an ejection fraction of more than 40% to receive empagliflozin (10 mg once daily) or placebo, in addition to usual therapy. **The primary outcome was a composite of cardiovascular death or hospitalization for heart failure.**

Over a median of 26.2 months, a primary outcome event occurred in 415 of 2997 patients (13.8%) in the empagliflozin group and in 511 of 2991 patients (17.1%) in the placebo group (hazard ratio, 0.79; 95% confidence interval [CI], 0.69 to 0.90; P<0.001). This effect was mainly related to a lower risk of hospitalization for heart failure in the empagliflozin group. **The effects of empagliflozin appeared consistent in patients with or without diabetes.** The total number of hospitalizations for heart failure was lower in the empagliflozin group than in the placebo group (407 with empagliflozin and 541 with placebo; hazard ratio, 0.73; 95% CI, 0.61 to 0.88; P<0.001). **Uncomplicated genital and urinary tract infections and hypotension were reported more frequently with empagliflozin.**

Empagliflozin reduced the combined risk of cardiovascular death or hospitalization for heart failure in patients with heart failure and a preserved ejection fraction, regardless of the presence or absence of diabetes.

The correct answer is 2.

Reference: Anker SD, Butler J, Filippatos G, Ferreira JP, Bocchi E, Böhm M, et al. Empagliflozin in Heart Failure with a Preserved Ejection Fraction. *N Engl J Med*. 2021 Oct 14;385(16):1451-1461.

Available from: https://www.nejm.org/doi/10.1056/NEJMoa2107038?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%20%200pubmed

PMID: 34449189

Q3 Inhaled Budosenide

Inhaled budesonide improves time to recovery, with a chance of also reducing hospital admissions or deaths, in people with COVID-19 in the community who are at higher risk of complications.

❍ 1. True
❍ 2. False

Educational Point: There is an urgent need for effective and safe community-based treatments for COVID-19, especially for older people and those with comorbidities who are at higher risk of hospital admission and death.

Inhaled corticosteroids are widely available, inexpensive, and generally safe, and have been proposed as a COVID-19 treatment because of their targeted anti-inflammatory effects in the lungs. Inhaled steroids also reduce replication of SARS-CoV-2 in epithelial cells in vitro. Early in the COVID-19 pandemic, the low prevalence of asthma and chronic obstructive pulmonary disease among people admitted to hospital with COVID-19 led to speculation that the inhaled corticosteroids used to treat these conditions might be protective. An efficacy trial of adults with early COVID-19 in the community found inhaled budesonide reduced COVID-19-related emergency assessments or hospital admissions, and time to self-reported recovery.