

Search Strategy

Search terms and Boolean connectors	"DPP4 inhibitor" OR "DPP-4 inhibitor" OR gliptin OR sitagliptin OR saxagliptin OR linagliptin OR alogliptin AND "heart failure" AND "type 2 diabetes"
Databases searched	<i>PUBMED</i> <i>MEDLINE</i> <i>MDPI</i> <i>Google Scholar</i> <i>DOAJ</i> Clinical Trials: clinicaltrials.gov
Part of journals searched	<i>Keywords in abstract and title</i> <i>MeSH terms</i>

Years of search	No date restrictions will be applied
Language	Studies published in English language only
Types of studies to be included	Randomized-controlled trials (RCTs)
Inclusion criteria	<i>Types of participants</i> <i>Adult patients with type-2 diabetes mellitus aged 18 years and above, any gender, with or without history of heart failure.</i> <i>Types of trials</i> Randomized controlled trials <i>Types of interventions</i> Dipeptidyl peptidase-4 Inhibitor class drugs <i>Control conditions</i> Patients with type-2 diabetes mellitus given placebo <i>Types of Outcomes</i> Primary Outcome: Risk Ratio of heart failure events Secondary Outcomes: heart failure events, hospital admissions, death
Exclusion criteria	Systematic reviews, non-randomized trials, Studies lacking publicly available data, pediatric patients, studies not reporting quantitative data for heart failure events, studies other than randomized controlled trials, studies in languages other than English, non-open access and non-full text available studies.