Table S1: Modified Jadad scores of the included studies

Study Name	Was the research described as randomization?	Was the approach of randomization appropriate?	Was the research described as blinding?	Was the approach of blinding appropriate?	Was there a presentation of the withdrawals and dropouts?	Was there a presentation the inclusion/exclusion criteria?	Was the approach used to assess adverse effects described?	Was the approach of statistical analysis described?	total
CANVAS Neal et al	Yes (1)	Yes (1)	Yes Single blind (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	yes (1)	8
DAPA-HF McMurray et al	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	yes (1)	yes (1)	Yes (1)	8
DECLARE-TIMI 58 Wiviott et al	Yes (1)	Yes (1)	Yes Single (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	8
EMPA-REG OUTCOME Zinman et al	Yes(1)	Yes (1)	Yes Double (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	8
CREDENCE Perkovic et al	Yes (1)	Yes (1)	Yes Double (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	8

Table S2: Definition of inclusion, exclusion, primary outcome, secondary outcome

	Inclusion	Exclusion	Primary outcome	Secondary Outcomes
CANVAS Neal et al	men and women with type 2 diabetes (glycated hemoglobin level, ≥7.0% and ≤10.5%) and were either 30 years of age or older with a history of symptomatic atherosclerotic cardiovascular disease or 50 years of age or older with two or more of the following risk factors for cardiovascular disease: duration of diabetes of at least 10 years, systolic blood pressurehigherthan140mmHg while they were receiving one or more antihypertensive agents, current smoking, microalbuminuria or macroalbuminuria, or high-density lipoprotein (HDL) cholesterol level of less than 1 mmol per liter (38.7 mg per deciliter), an estimated glomerular filtration rate (eGFR) at entry of more than 30 ml per minute per 1.73 m2 of body-surface area and to meet a range of other criteria	History of diabetic ketoacidosis, type 1 diabetes, pancreas or beta-cell transplantation, or diabetes secondary to pancreatitis or pancreatectomy. H/o one or more severe hypoglycemic episode with in 6 months before screenng, MI or unstable angina, revascularization procedure, or cerebovascular accident with in 3 months before screening, or planned revascularization procedure, or history of NYHA IV cardiac disease	The primary outcome was a composite of death from cardiovascular causes, nonfatal myocardial infarction, or nonfatal stroke.	Secondary outcomes planned for sequential conditional hypothesis testing were death from any cause, death from cardiovascular causes, progression of albuminuria, and the composite of death from cardiovascular causes and hospitalization for heart failure
DAPA-HF McMurray et al	age> 18, EF 40% or less, NYHA –II, III, IV symptoms NT-ProBNP- at least 600 pg per milliliter (or ≥400 pg per milliliter if hospitalized for heart failure within the previous 12 months) Afib, Aflutter - at least 900 pg per milliliter Standard heart failure device therapy (ICD,CRT or both) GDMT-ACE-I, ARB, Sacubitril-valsartan, beta-blocker (unless contraindicated/side-effects)	Recent treatment with or unacceptable side effects associated with an SGLT2 inhibitor Type 1 diabetes mellitus Symptoms of hypotension or SBP < 95 mm Hg eGFR < 30 ml per minute per 1.73 m2 BSA (or rapidly declining renal function)	The primary outcome was a composite of wors- ening heart failure or death from cardiovascular causes. An episode of worsening heart failure was either an unplanned hospitalization or an urgent visit resulting in intravenous therapy for heart failure.	A key secondary outcome was a composite of hospitalization for heart failure or cardiovascular death. The additional secondary outcomes were the total number of hospitalizations for heart failure (including repeat admissions) and cardiovascular deaths; the change from baseline to 8 months in the total symptom score on the Kansas City Cardiomyopathy Questionnaire
DECLARE-TIMI 58 Wiviott et al	Age ≥40 years DM2 Glycosylated hemoglobin (HbA1c) of ≥6.5% and ≤12% Glomerular filtration rate (GFR) of >60 Established cardiovascular disease or multiple risk factors including men ≥55 years or women ≥60 years with hypertension, dyslipidemia, or tobacco use	Diagnosis of type 1 DM History of bladder cancer or history of radiation therapy to the lower abdomen or pelvis at any time Chronic cystitis and/or recurrent urinary tract infections Pregnant or breast-feeding patients	Diagnosis of type 1 DM History of bladder cancer or history of radiation therapy to the lower abdomen or pelvis at any time Chronic cystitis and/or recurrent urinary tract infections Pregnant or breast-feeding patients	Seondary outcomes 1. renal composite outcome, defined as a sustained decrease of 40% or more in estimated glomerular filtration rate (eGFR) —calculated by means of the Chronic Kidney Disease Epidemiology Collaboration equation22 to less than 60 ml per minute per 1.73 m2 of body-surface area, new end-stage renal disease, or death from renal or cardiovascular causes. 2. Death from any cause

EMPA-REG OUTCOME Zinman et al	Age ≥ 18 years WITH DM2with BMI < = 45 kg/m2 and estimated GFR at least 30 ml per min. All patietns have established cardiovascular risk . had received no glucose-lowering agents for at least 12 weeks before randomization and had a glycated hemo- globin level of at least 7.0% and no more than 9.0% or had received stable glucose-lowerin therapy for at least 12 weeks before randomiza- tion and had a glycated hemoglobin level of at least 7.0% and no more than 10.0%	Uncontrolled hyperglycemia with glucose >240 mg/dL after an overnight fast during placebo run-in and confirmed by a second measurement (not on the same day). liver disease, defined by serum levels of alanine amininotransferase, aspartate aminotransferase, or alkaline phosphatase above 3 x upper limit of normal during screening or run-in phase.Planned cardiac surgery or angioplasty within 3 months. Estimated glomerular filtration rate <30 ml/min/1.73 m2. Any uncontrolled endocrine disorder except type 2 diabetes	The primary outcome was a composite of death from cardiovascular causes, nonfatal myocardial infarction (excluding silent myocardial infarction), or nonfatal stroke.	The key secondary outcome was a composite of the primary outcome plus hospitalization for unstable angina.
CREDENCE Perkovic et al	Age > 30 years with DM and HBA1C 6.5 %- 12 % (6.5 to 10.5 % in Germany), according to a country ammedment),. CKD with GR 30 -90 ml per min and albuminuria , receiving stable dose of ACEi or ARBS for at least 4 weeks of randomization	History of diabetic ketoacidosis or type 1 diabetes mellitus (T1DM).History of hereditary glucose-galactose malabsorption or primary renal glucosuria.Known medical history or clinical evidence suggesting nondiabetic renal disease.Renal disease that required treatment with immunosuppressive therapy or a history of chronic dialysis or renal transplant.Uncontrolled hypertension (systolic blood pressure [BP] ≥180 and/or diastolic BP ≥100 mmHg) by Week.Myocardial infarction, unstable angina, revascularization procedure (e.g., stent or bypass graft surgery), or cerebrovascular accident within 12 weeks before randomization, or a revascularization procedure is planned during the trial. Current or history of heart failure of New York Heart Association (NYHA) class IV cardiac disease (The Criteria Committee of the NYHA).	composite of end-stage kidney disease (dialysis for at least 30 days, kidney transplant, or an estimated GFR of < 15 ml per 1.73 m2 suatined for at least 30 days according to central laboratory assesment), doubling of the serum creatinine level from baseline ((average of randomization and prerandomization value) sustained for at least 30 days according to central laboratory assessment, or death from renal or cardiovascular disease.	sequential hierarchical testing were specified in the following order: first, a composite of cardio-vascular death or hospitalization for heart failure;second, a composite of cardiovascular death, myocardial infarction, or stroke; third, hospital-ization for heart failure; fourth, a composite of end-stage kidney disease, doubling of the serum creatinine level, or renal death; fifth, cardiovas-cular death; sixth, death from any cause; and seventh, a composite of cardiovascular death, myocardial infarction, stroke, or hospitalization for heart failure or for unstable angina. All otherefficacy outcomes were exploratory.