List of Abbreviations:

SGLT2: sodium-glucose cotransporter 2

HF: Heart Failure

HHF: Hospitalization for heart failure

CV: Cardiovascular

RCTs: Randomized control studies

GDMT: guideline-directed medical therapy

RAAS: Renin-Angiotensin-Aldosterone-System

ARB: Angiotensin receptor blocker

ACEi: Angiotensin-converting enzyme inhibitors

ARNI: Angiotensin receptor/Neprilysin inhibitor

MRA: Mineralocorticoid receptor antagonists

RR: Risk Ratio

OR: Odds Ratio

CI: Confidence interval

NYHA: New York heart association,

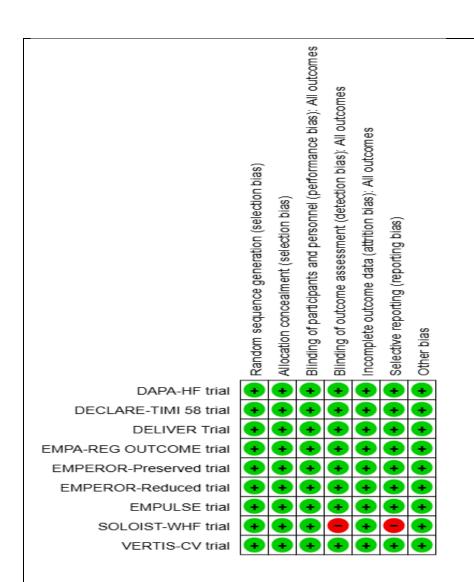
LVEF: left ventricular ejection fraction

T2DM: type 2 diabetes mellites

HTN: hypertension

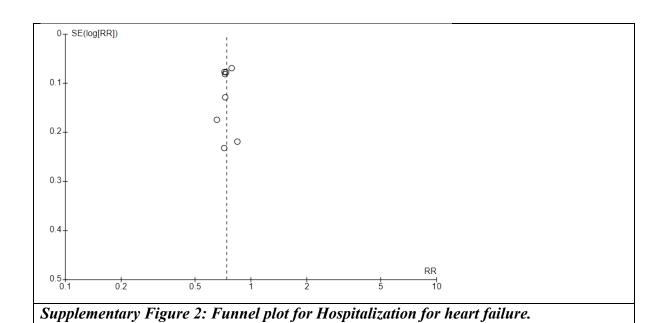
CAD: coronary artery disease

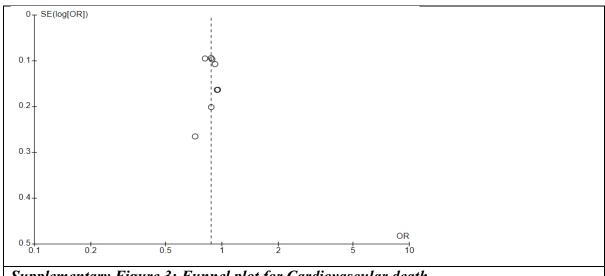
AF: atrial fibrillation



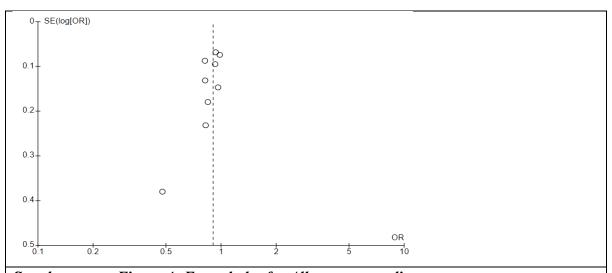
Higgins JP, Altman DG, Sterne JA editor(s). Chapter 8: Assessing risk of bias in included studies. In: Higgins JP, Green S editor(s). Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0 (updated March 2011).

Supplementary Figure 1: Risk of bias assessment





Supplementary Figure 3: Funnel plot for Cardiovascular death.



Supplementary Figure 4: Funnel plot for All-cause mortality.

	SGLT2 inhibitor		Placebo		Odds ratio		Odds ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% CI	M-H, Random, 95% C	
✓ DAPA-HF trial	227	2373	273	2371	21.9%	0.81 [0.67 , 0.98]	-	
✓ DECLARE-TIMI 58 trial	79	980	85	1007	7.4%	0.95 [0.69 , 1.31]	_	
/ DELIVER Trial	231	3131	261	3132	22.3%	0.88 [0.73 , 1.05]	-	
/ EMPA-REG OUTCOME trial	38	462	27	244	2.8%	0.72 [0.43 , 1.21]		
 EMPEROR-Preserved trial 	219	2997	244	2991	21.0%	0.89 [0.73 , 1.07]	-	
/ EMPEROR-Reduced trial	187	1863	202	1867	17.2%	0.92 [0.75 , 1.13]	-	
SOLOIST-WHF trial	51	608	58	614	0.0%	0.88 [0.59 , 1.30]		
/ VERTIS-CV trial	116	1286	64	672	7.4%	0.94 [0.68 , 1.30]	-	
otal (HKSJ³)		13092		12284	100.0%	0.88 [0.83 , 0.93]	•	
otal events:	1097		1156				'	
Test for overall effect: T = 5.35, or	df = 6 (P = 0)).002)					0.1 0.2 0.5 1 2	
Test for subgroup differences: N	ot applicabl	е					SGLT2 inhibitor Placebo	
Heterogeneity: Tau ² (DL ^b) = 0.00	; Chi ² = 1.8	4, df = 6	P = 0.93;	$I^2 = 0\%$				
ootnotes								
Cl calculated by Hartung-Knapp			hod.					
Tau ² calculated by DerSimoniar	and Laird	method.						

Supplementary Figure 5: Statistical analysis and forest plot of cardiovascular deaths after sensitivity analysis.

Study or Subgroup	SGLT2 inhibitor		Placebo		Odds ratio		Odds ratio	
	Events	Total	Events	Total	Weight	M-H, Random, 95% CI	M-H, Random, 95% CI	
✓ DAPA-HF trial	276	2373	329	2371	17.1%	0.82 [0.69 , 0.97]	-	
✓ DECLARE-TIMI 58 trial	122	980	149	1007	7.6%	0.82 [0.63 , 1.06]	-	
✓ DELIVER Trial	497	3131	526	3132	27.8%	0.93 [0.82 , 1.07]	+	
✓ EMPA-REG OUTCOME trial	56	462	35	244	2.4%	0.82 [0.52 , 1.30]		
✓ EMPEROR-Preserved trial	422	2997	427	2991	23.7%	0.98 [0.85 , 1.14]	+	
✓ EMPEROR-Reduced trial	249	1863	266	1867	14.4%	0.93 [0.77 , 1.12]	-	
✓ EMPULSE trial	11	265	22	265	0.9%	0.48 [0.23 , 1.01]		
× SOLOIST-WHF trial	65	608	76	614	0.0%	0.85 [0.60 , 1.20]		
✓ VERTIS-CV trial	150	1286	81	672	6.0%	0.96 [0.72 , 1.28]	+	
Total (HKSJ²)		13357		12549	100.0%	0.91 [0.84 , 0.99]	•	
Total events:	1783		1835				1	
Test for overall effect: T = 2.74, o	df = 7 (P = 0)	0.03)					0.1 0.2 0.5 1 2 5	
Test for subgroup differences: N	ot applicabl	0					SGLT2 inhibitor Placebo	

Supplementary Figure 6: Statistical analysis and forest plot of All-cause mortality after sensitivity analysis.

Footnotes

aCl calculated by Hartung-Knapp-Sidik-Jonkman method.

bTau² calculated by DerSimonian and Laird method.