Figure 1. Hepatic decompensation events in 1:1 propensity score matched initiators of (A) SGLT2 inhibitors vs. GLP-1 receptor agonists, and (B) SGLT-2 inhibitors vs. Thiazolidinediones.

	Exposure		Comparator		RD per 1000 PYs	Adjusted HR		
	Events	IR per 1000 PYs (95% CI)	Events	IR per 1000 PYs (95% CI)	(95% CI)	(95% CI)	Forest Plot	
(A) SGLT-2i vs GLP-1RA							Favors Favors	
Primary outcome							exposure comparator	
Hepatic decompensation events	237	10.61 (9.34 to 12.05)	173	14.21 (12.24 to 16.50)	-3.60 (-6.12 to -1.09)	0.93 (0.76 to 1.14)	<u></u>	
Secondary outcome								
Ascites	180	8.03 (6.94 to 9.30)	108	8.84 (7.32 to 10.68)	-0.81 (-2.85 to 1.23)	1.12 (0.88 to 1.43)	r ia r	
Esophageal varices with bleeding	14	0.62 (0.37 to 1.05)	10	0.82 (0.44 to 1.52)	-0.20 (-0.80 to 0.41)	0.80 (0.35 to 1.83)		
Hepatic failure	68	3.02 (2.38 to 3.83)	64	5.24 (4.10 to 6.69)	-2.21 (-3.69 to -0.74)	0.71 (0.50 to 1.00)	⊢	
Liver transplant	5	0.22 (0.09 to 0.53)	17	1.39 (0.86 to 2.23)	-1.17 (-1.85 to -0.48)	0.25 (0.09 to 0.70)		
Liver-cause death	6	0.27 (0.12 to 0.59)	8	0.65 (0.33 to 1.30)	-0.39 (-0.89 to 0.11)	0.45 (0.15 to 1.32)	—	
All-cause death	114	5.05 (4.20 to 6.07)	56	4.57 (3.51 to 5.93)	0.48 (-1.03 to 2.00)	1.24 (0.90 to 1.72)	-	
B) SGLT-2i vs TZD								
Primary outcome							į	
Hepatic decompensation events	1666	7.64 (7.28 to 8.02)	1954	10.18 (9.73 to 10.64)	-2.53 (-3.12 to -1.95)	0.77 (0.72 to 0.82)	•	
Secondary outcome							i i	
Ascites	1150	5.25 (4.96 to 5.57)	1380	7.16 (6.79 to 7.54)	-1.90 (-2.39 to -1.42)	0.75 (0.70 to 0.82)	•	
Esophageal varices with bleeding	120	0.55 (0.46 to 0.65)	138	0.71 (0.60 to 0.84)	-0.17 (-0.32 to -0.01)	0.77 (0.60 to 0.98)	⊢	
Hepatic failure	579	2.64 (2.43 to 2.86)	676	3.50 (3.24 to 3.77)	-0.86 (-1.20 to -0.52)	0.77 (0.69 to 0.87)	_	
Liver transplant	29	0.13 (0.09 to 0.19)	35	0.18 (0.13 to 0.25)	-0.05 (-0.13 to 0.03)	0.79 (0.48 to 1.29)		
Liver-cause death	68	0.31 (0.24 to 0.39)	98	0.51 (0.41 to 0.62)	-0.20 (-0.32 to -0.07)	0.61 (0.45 to 0.84)	H=H	
All-cause death	948	4.31 (4.04 to 4.59)	1155	5.95 (5.62 to 6.31)	-1.65 (-2.09 to -1.21)	0.73 (0.67 to 0.79)	•	
							0.1	

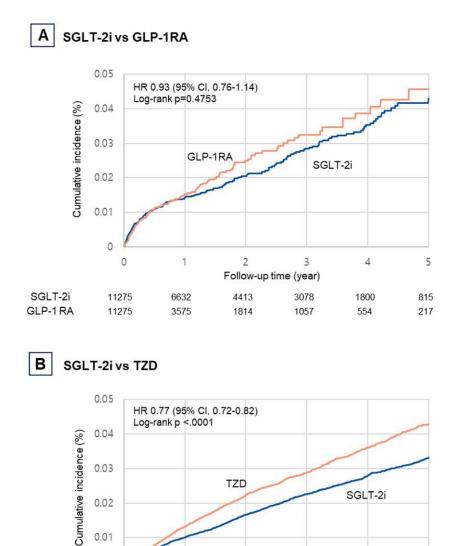
Abbreviations: CI, confidence interval; GLP-1RA, glucagon-like peptide 1 receptor agonists; HR, hazard ratio; IR, incidence rate; PY, person-year; RD, rate difference; SGLT-2i, sodium-glucose cotransporter 2 inhibitors; TZD, thiazolidinediones

Figure 2. Results of subgroup analyses for hepatic decompensation events in 1:1 propensity score matched initiators of (A) SGLT2 inhibitors vs. GLP-1 receptor agonists, and (B) SGLT-2 inhibitors vs. Thiazolidinediones.

	(A) SGLT-2i vs GLP-1RA		(B) SGLT-2i vs TZD			
	Adjusted HR (95% CI)	Forest plot	P value for interaction	Adjusted HR (95% CI)	Forest plot	P value for interaction	
Age		_ :		****			
<65	0.68 (0.52 to 0.90)	⊢ ■	< 0.01	0.82 (0.74 to 0.90)	•	0.68	
≥65	1.37 (1.02 to 1.84)	<u> </u>		0.80 (0.73 to 0.87)	-		
Sex		1			i I		
Male	0.87 (0.67 to 1.15)	⊢	0.32	0.87 (0.80 to 0.94)	-	< 0.01	
Female	1.00 (0.74 to 1.35)	⊢		0.62 (0.55 to 0.69)	-		
History of cirrhosis		1			1 1		
Yes	0.95 (0.71 to 1.26)	⊢	0.95	0.82 (0.75 to 0.91)	-	0.12	
No	0.91 (0.69 to 1.21)	-		0.73 (0.67 to 0.80)			
History of insulin use	2	1			į		
Yes	1.02 (0.80 to 1.30)	H-	0.23	0.72 (0.63 to 0.82)	H ar H	0.11	
No	0.74 (0.52 to 1.06)	- ■ -H		0.78 (0.72 to 0.84)			
SGLT2i molecule		į			į		
Dapagliflozin	0.80 (0.60 to 1.06)	⊢		0.69 (0.63 to 0.75)	•		
Empagliflozin	0.97 (0.72 to 1.31)	⊢		0.87 (0.77 to 0.97)	⊢		
	0			0.			

Abbreviations: CI, confidence interval; GLP-1RA, glucagon-like peptide 1 receptor agonists; HR, hazard ratio; IR, incidence rate; PY, person-year; RD, rate difference; SGLT-2i, sodium-glucose cotransporter 2 inhibitors; TZD, thiazolidinediones

Figure 3. Cumulative incidence of hepatic decompensation events in 1:1 propensity score matched initiators of (A) SGLT2 inhibitors vs. GLP-1 receptor agonists, and (B) SGLT-2 inhibitors vs. Thiazolidinediones.



Abbreviations: CI, confidence interval; GLP-1RA, glucagon-like peptide 1 receptor agonists; HR, hazard ratio; SGLT-2i, sodium-glucose cotransporter 2 inhibitors; TZD, thiazolidinediones

58703

54072

Follow-up time (year)

29893

24214

20320

15631

12438

9293

41587

35684

0.01

SGLT-2i TZD

0 0

95814

95814