

GLP-1 Use is Associated with Improvement in Hospitalization Rates in ESKD Patients

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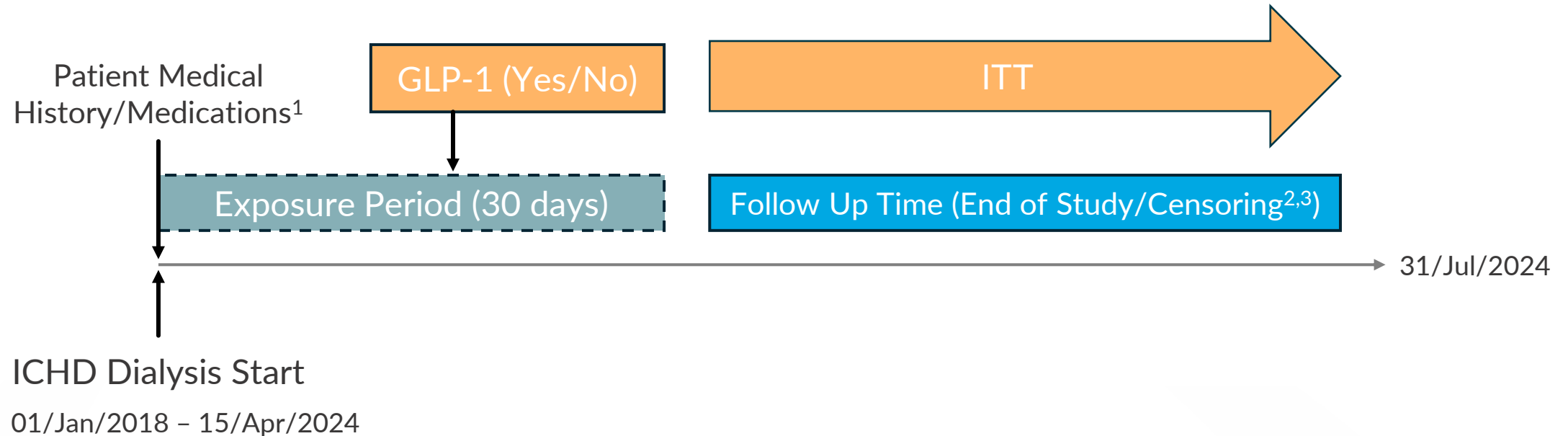
Disclosures

- Steph Karpinski – employee of DaVita, Inc.
- Rizwan Qazi – Medical Director at DaVita, KSOSN in Las Vegas
- Terrence Bjordahl – Medical Director at DaVita, employee of University of Utah
- Scott Sibbel – employee of DaVita, Inc.
- Eric Weinhandl – employee of DaVita, Inc.
- Francesca Tentori – employee of DaVita, Inc.
- Steven M. Brunelli – employee of DaVita, Inc.

Background

- In a recent clinical trial (FLOW), the GLP-1 agonist Semaglutide reduced the risk of clinically important outcomes and death from cardiovascular causes in patients with type 2 diabetes and CKD.¹
- Given the clinical trial benefit in patients with CKD, the clinical question remains whether, and to what degree, these drugs are beneficial to patients with ESKD.
- In this analysis, we sought to evaluate the impact of GLP-1 agonist use in incident ESKD patients on hospitalizations.

Methods



1. Among all eligible patients, patients with and without GLP-1 medication documentation in the first 30 days were matched 1:1 on diabetes diagnosis, 2728 indicator of predialysis nephrology care, and use of diabetes medications during the first 30 days of dialysis, dialysis initiation date (± 7 days), and weight from first dialysis treatment (± 5 kg)
2. Patients were censored for death, loss to follow up, transfer, transplant, and end of study. Patients were followed until July 31, 2024.
3. No collection on medication use was attempted or censored for.

01/Jan/2018 – 15/Apr/2024

Option #1: Carryover Use



Option #2: New use after ICHD Dialysis Start

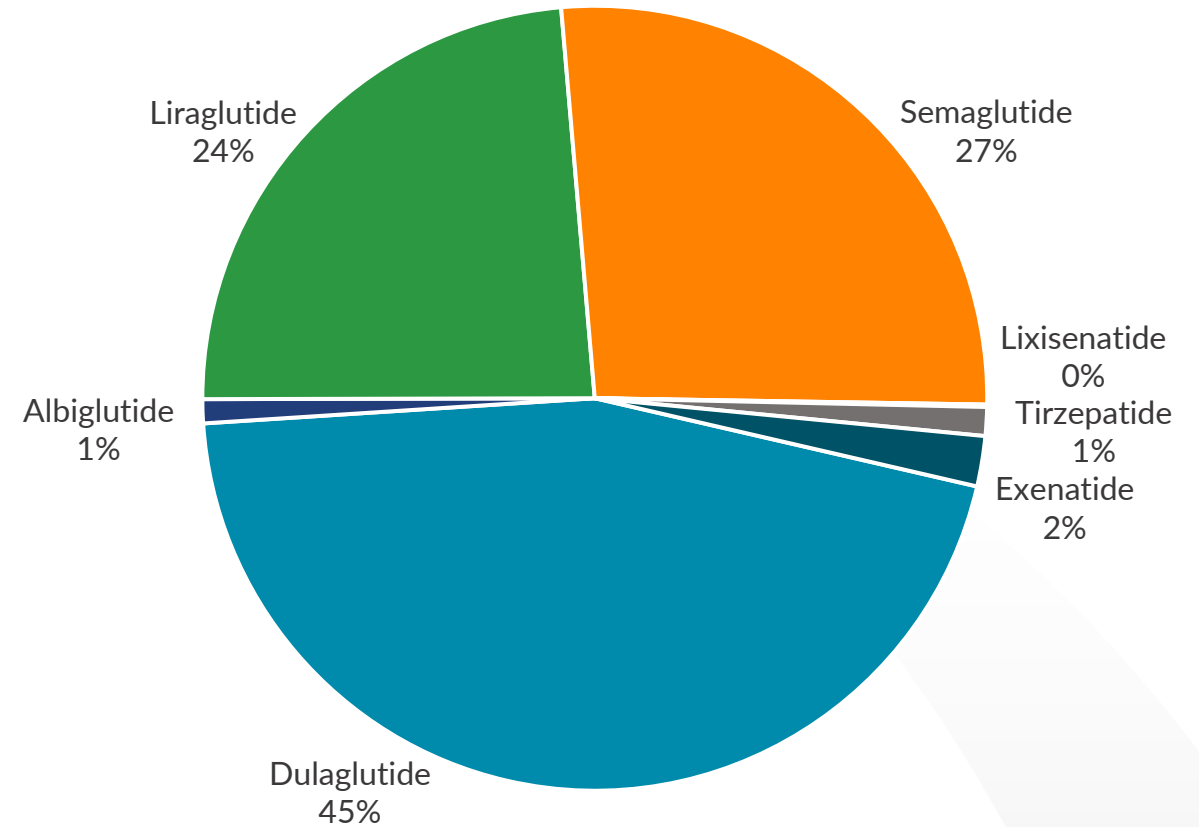


Table 1 – Patient demographics

Characteristic	Eligible Cohort	
	No GLP-1 N = 113,735	GLP-1 N = 2,957
Female, %	42%	41%
Age, mean (SD)	63.7 (14.5)	63.3 (11.6)
Race, %		
White	39%	45%
Black	26%	22%
Hispanic	16%	13%
Other	19%	20%
Etiology, %		
Diabetes	36%	55%
Hypertension/Large Vessel Disease	25%	14%
Other/ Unknown	40%	31%
Body mass index (BMI), mean (SD)	29.4 (7.7)	34.2 (8.4)
Predialysis weight, mean (SD)	85.7 (24.6)	100.8 (27.8)
Dual eligibility indicator, %	16%	20%
Matched on insulin, sulfonurea, DPP4i, SGLT-2i, and use of other diabetes medications. Also matched on recorded diabetes diagnosis and pre-dialysis weight with a caliper of 5 kg, the 2728 indicator for predialysis nephrology care, and index date with a caliper of 7 days.		

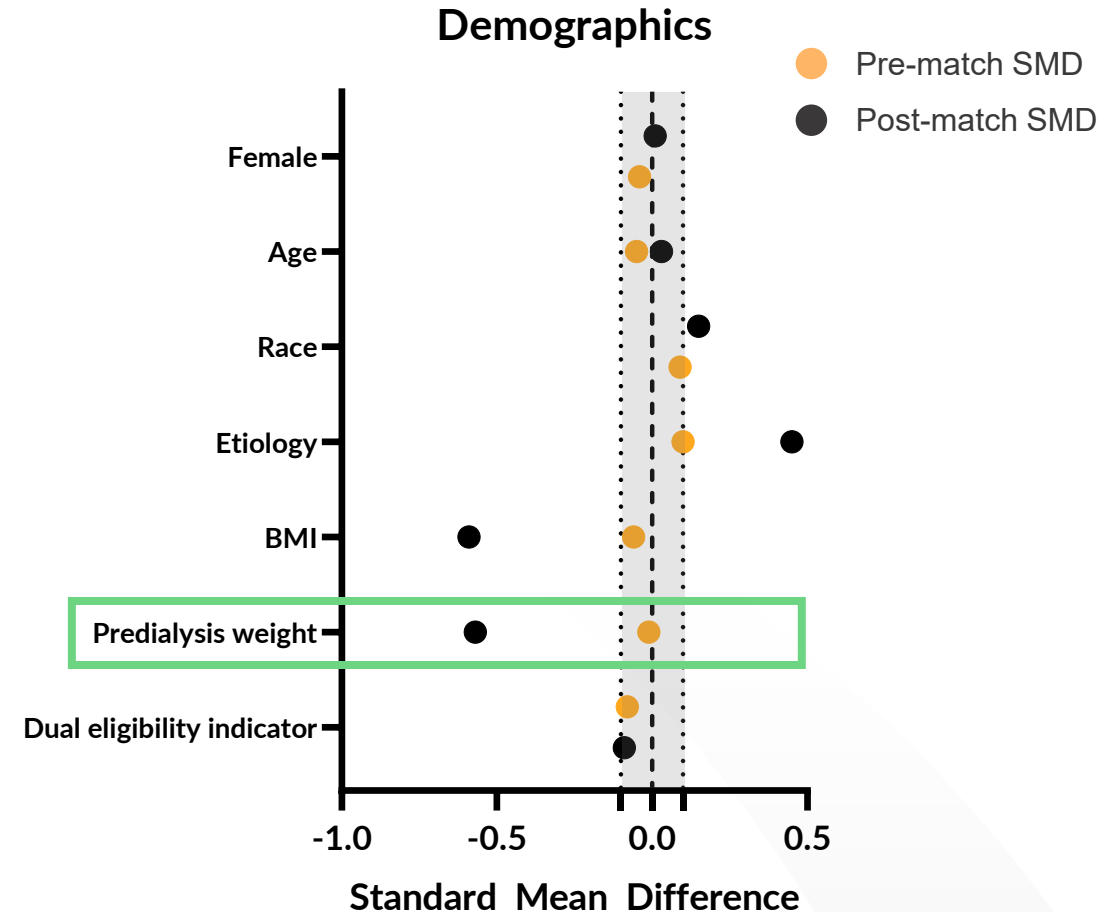
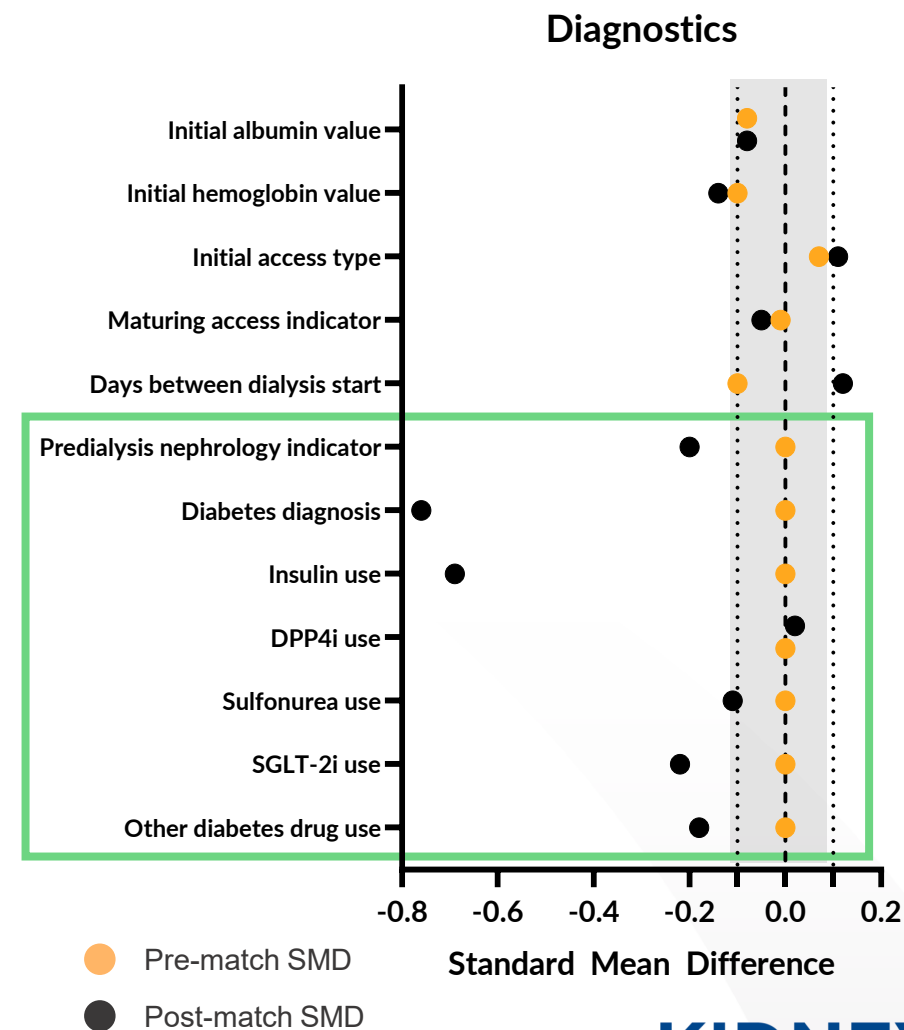


Table 1 – Patient diagnostics

Characteristic	Eligible Cohort	
	No GLP-1 N = 113,735	GLP-1 N = 2,957
Initial albumin value, mean (SD)	3.6 (0.5)	3.6 (0.5)
Initial hemoglobin value, mean (SD)	9.3 (1.3)	9.5 (1.3)
Initial access type, %		
AV Fistula/Graft/Shunt	18%	26%
CVC Catheter	78%	73%
PD Catheter	<0.1%	0%
Maturing access indicator, %	14%	15%
Days between chronic/ facility dialysis start, mean (SD)	2.0 (3.0)	1.6 (2.7)
Predialysis nephrology indicator, %	67%	76%
Diagnosis: diabetes, %	72%	98%
Indicator Rx: insulin, %	28%	61%
Indicator Rx: DPP4i, %	4.4%	4.1%
Indicator Rx: sulfonurea, %	6.6%	9.5%
Indicator Rx: SGLT-2i, %	0.7%	4.1%
Indicator Rx: other diabetes drug, %	2.3%	5.7%

Matched on insulin, sulfonurea, DPP4i, SGLT-2i, and use of other diabetes medications. Also matched on recorded diabetes diagnosis and weight with a caliper of 5 kg, the 2728 indicator for predialysis nephrology care, and index date with a caliper of 7 days.

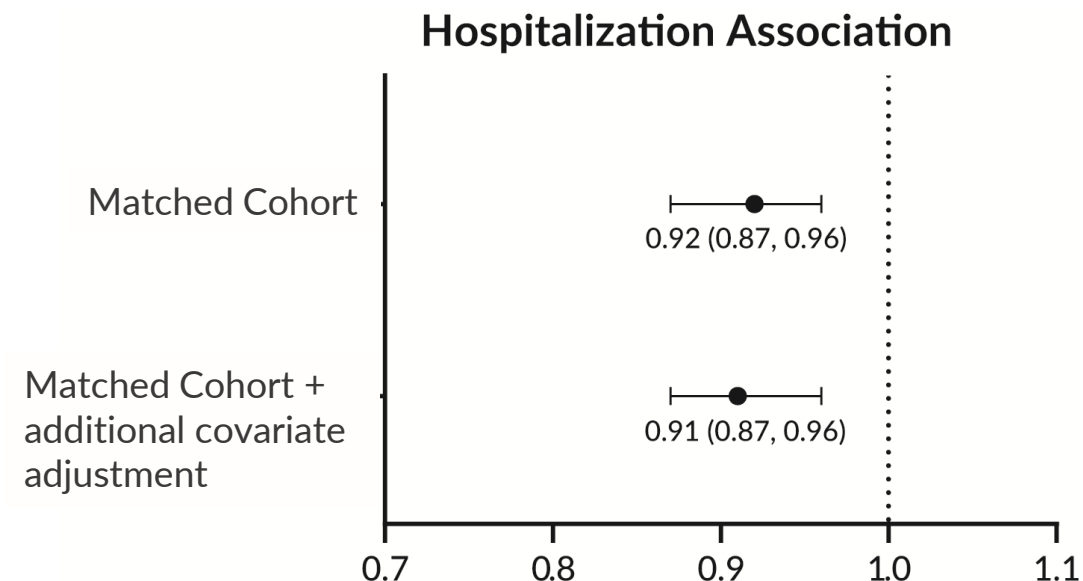


Outcome: Hospitalizations

	No GLP-1	GLP-1
At-risk time, patient years	3,845	4,048
Hospitalization Events	3,721	3,725
Hospitalization Rate, per pt year	0.97	0.92
Matched cohort IRR (95% CI) ^a	Ref	0.92 (0.87, 0.96)
Matched cohort + additional covariate adjustment IRR (95% CI) ^b	Ref	0.91 (0.87, 0.96)

^a Incident rate ratios were estimated using a negative binomial distribution with a random intercept to account for the matched nature of the data. Matched on insulin, sulfonurea, DPP4i, SGLT-2i, and use of other diabetes medications, diabetes diagnosis, pre-dialysis weight, evidence of predialysis nephrology care, and index date.

^b Adjusted for age, race, and dual eligibility



Conclusions

- Descriptively, patients filling GLP-1 prescriptions in the first month of dialysis are
 - On average 63 years old,
 - Most frequently self described as white (46%), with a mean BMI of 33.
 - Nearly all patients (98%) have a known diagnosis of, or a medication inferred evidence of diabetes, and
 - A majority have 2728 form evidence of predialysis nephrology care.
 - Few are dual eligible patients (<20%) .
- The association of GLP-1 to outcomes in dialysis is positive.
 - In the context of known diabetic, new ICHD patients continued GLP-1 use is associated with a 9% reduction in hospitalizations.

Questions?