

Table 1: Baseline Characteristics of patients prescribed diuretics and characteristics of those with VCS-20: volume contracted state defined as BUN/Creatinine ratio>20

Variable	Diuretic (n=3051)	No Diuretic (n=4393)	p-value	Volume contracted state (VCS-20) (n=2626)	No Volume contracted state (VCS-20) (n=3345)	p-value
Age (years)	72 ± 11	67 ± 13	<0.001	72 ± 11	67 ± 13	<0.001
Sex, female	1525 (50%)	1874 (43%)	<0.001	1499 (57%)	1220 (36%)	<0.001
Race/ethnicity*						
- Black	114 (4%)	91 (2%)	<0.001*	34 (1%)	156 (5%)	<0.001*
- Asian	156 (5%)	306 (7%)		157 (6%)	285 (9%)	
- White	2478 (81%)	3218 (73%)		2296 (87%)	2730 (82%)	
- Other	303 (10%)	778 (18%)		139 (5%)	174 (5%)	
Country						
- Europe/Australia/ South Africa/Israel	1763 (58%)	2804 (64%)	---	1638 (62%)	2212 (66%)	---
- North America	1118 (37%)	1234 (38%)		810 (31%)	824 (25%)	
- South America	37 (1%)	64 (1%)		50 (2%)	46 (1%)	
- East Asia	128 (4%)	277 (6%)		128 (5%)	263 (8%)	
Hypertension	2573 (84%)	2580 (59%)	<0.001	1912 (73%)	2342 (70%)	0.018
Diabetes mellitus	850 (28%)	760 (17%)	<0.001	640 (24%)	660 (20%)	<0.001
Atrial fibrillation	1079 (35%)	825 (19%)	<0.001	762 (29%)	742 (22%)	<0.001
Heart failure	563 (19%)	114 (3%)	<0.001	275 (10%)	230 (7%)	<0.001
Previous myocardial infarction	495 (16%)	421 (10%)	<0.001	313 (12%)	416 (12%)	0.545
Previous stroke	555 (19%)	669 (16%)	0.002	480 (18%)	644 (19%)	0.337
Previous TIA	235 (8%)	326 (8%)	0.583	207 (8%)	287 (9%)	0.342
THRIVE score	4 (3-5)	3 (2-4)	<0.001	4 (3-5)	3 (2-5)	<0.001
Chronic kidney disease Stage						
- 0	502 (17%)	1195 (29%)	<0.001	717 (27%)	719 (21%)	0.093
- 1	1318 (46%)	2117 (51%)		1234 (47%)	1696 (51%)	
- 2	698 (24%)	628 (15%)		470 (18%)	660 (20%)	
- 3	303 (11%)	165 (4%)		183 (7%)	219 (7%)	
- 4	59 (2%)	27 (1%)		21 (1%)	47 (1%)	
- 5	5 (0.2%)	1 (0.02%)		1 (0.04%)	4 (0.1%)	
Diuretics						
- K ⁺ -sparing only	63 (2%)		---	261 (10%)	259 (8%)	0.003
- Non-K ⁺ -sparing only	2441 (80%)			1160 (44%)	1290 (39%)	<0.001
- Both	547 (18%)			229 (9%)	234 (7%)	0.013
- Neither				1431 (54%)	2017 (60%)	<0.001
- Any diuretic	3051 (100%)	4393 (100%)		1192 (45%)	1315 (39%)	<0.001
Baseline Labs						
- Blood urea nitrogen (mg/dL)	20 ± 9	18 ± 7	<0.001	23 ± 8	15 ± 6	<0.001
- Creatinine (mg/dL)	1.03 ± 0.37	0.92 ± 0.27	<0.001	0.91 ± 0.27	1.01 ± 0.33	<0.001
- Sodium (mmol/L)	139 ± 4	140 ± 3	<0.001	140 ± 4	140 ± 4	0.785
- Potassium (mmol/L)	4.1 ± 0.5	4.1 ± 0.5	0.011	4.1 ± 0.5	4.1 ± 0.5	0.024
- Glucose (mg/dL)	144 ± 59	132 ± 54	<0.001	142 ± 58	133 ± 52	<0.001
- Hemoglobin (g/dL)	13.5 ± 1.9	13.8 ± 1.7	<0.001	13.5 ± 1.7	14.0 ± 1.8	<0.001
Baseline BP (mm Hg)						
- systolic	154 ± 25	151 ± 23	<0.001	152 ± 24	153 ± 24	0.436
- diastolic	82 ± 14	81 ± 16	0.014	80 ± 15	83 ± 15	<0.001
Onset-to-Enrollment (hours)	4.4 ± 2.5	4.8 ± 2.8	<0.001	4.0 ± 1.1	4.0 ± 1.2	0.155
Baseline NIHSS score	14 (9-18)	12 (9-16)	<0.001	13 (9-17)	12 (8-16)	<0.001
IV thrombolysis (rtPA)	1035 (34%)	1323 (30%)	0.001	990 (38%)	1205 (36%)	0.212
Calculated osmolality (mmol/L)	294 ± 8	293 ± 8	<0.001	296 ± 8	292 ± 8	<0.001

Table 2: Comparing functional outcomes and mortality for patients with and without diuretic use including detail by class of diuretic; potassium-sparing versus non-potassium sparing classes in the bottom sections				
Variable	Any diuretic (n=3051)	No diuretic (n=4393)	OR (95% CI)	aOR (95% CI)
Change in NIHSS score (Baseline-90 day)	7 (5-10)	7 (5-10)	--	--
mRS >2 (bad)	33.0%	46.4%	1.76 (1.60-1.94)	1.17 (1.05-1.31)
mRS score	4 (2-5)	3 (1-4)	1.93 (1.78-2.10)	1.31 (1.20-1.42)
Mortality	24.5%	12.2%	2.33 (2.06-2.64)	1.64 (1.44-1.88)
	Potassium-sparing diuretic (n=610)	Not taking a potassium-sparing diuretic (n=6834)	OR (95% CI)	aOR (95% CI)
Change in NIHSS score (Baseline-90 day)	7 (5-10)	7 (5-10)	--	--
mRS >2 (bad)	41.1%	40.9%	0.99 (0.84-1.18)	0.79 (0.65-0.95)
mRS score	3 (1-5)	3 (1-4)	1.09 (0.94-1.27)	0.90 (0.77-1.05)
Mortality	21.4%	16.9%	1.34 (1.09-1.65)	1.17 (0.94-1.45)
	Non K-sparing diuretic (n=2988)	Not taking a non-K-sparing diuretic (n=4456)	OR (95% CI)	aOR (95% CI)
Change in NIHSS score (Baseline-90 day)	7 (5-10)	7 (5-10)	--	--
mRS >2 (bad)	33.0%	46.3%	1.75 (1.59-1.93)	1.17 (1.05-1.31)
mRS score	4 (2-5)	3 (1-4)	1.92 (1.76-2.09)	1.30 (1.19-1.42)
Mortality	24.5%	12.4%	2.30 (2.04-2.61)	1.64 (1.43-1.87)

aOR: adjusted for THRIVE score, Onset-to-Treatment time, and thrombolytic use

(This goes below table 2) Tests for interaction for dichotomous mRS outcome: VCS-20*diuretic p=0.994, VCS-30*diuretic p=0.536; for mRS shift VCS-20 p=0.940, VCS-30*diuretic p=0.649.

Table 3: Comparing 90-day functional outcomes and mortality for patients with and without VCS using two thresholds of BUN/Creatinine ratio (VCS-20 (BUN/Cr ratio>20) and (VCS-30 BUN/Cr ratio >30)				
	VCS-20 (n=2626)	No VCS-20 (n=3345)	OR (95% CI)	aOR (95% CI)
Change in NIHSS score (Baseline-90 day)	7 (5-10)	7 (5-10)	--	--
mRS >2 (bad)	37.6%	46.6%	1.45 (1.30-1.61)	1.09 (0.97-1.23)
mRS score	3 (1-5)	3 (1-4)	1.43 (1.30-1.57)	1.09 (1.00-1.20)
Mortality	19.8%	13.8%	1.53 (1.33-1.76)	1.18 (1.01-1.31)
	VCS-30 (n=462)	No VCS-30 (n=5509)	OR (95% CI)	aOR (95% CI)
Change in NIHSS score (Baseline-90 day)	7 (5-11)	7 (5-10)	--	--
mRS >2 (bad)	31.5%	43.5%	1.67 (1.36-2.06)	1.19 (0.95-1.50)
mRS score	4 (2-5)	3 (1-4)	1.64 (1.38-1.95)	1.17 (0.98-1.39)
Mortality	23.7%	15.8%	1.65 (1.31-2.07)	1.19 (0.93-1.52)
aOR: adjusted for THRIVE score, Onset-to-Treatment time, and thrombolytic use				

Table 4: Comparing 90 day outcomes for patients based on serum Potassium levels				
	Serum Potassium K⁺<3.5 (n=624)	Serum Potassium K⁺≥3.5 (n=6209)	OR (95% CI)	aOR (95% CI)
Change in NIHSS score (Baseline-90 day)	7 (5-10)	7 (5-10)	--	--
mRS >2 (bad)	36.0%	42.0%	1.29 (1.08-1.53)	1.26 (1.04-1.53)
mRS score	3 (1-5)	3 (1-4)	1.13 (0.98-1.31)	1.06 (0.91-1.23)
Mortality	17.1%	16.9%	1.01 (0.81-1.27)	0.96 (0.76-1.22)
	Serum Potassium K⁺≥5.0 (n=344)	Serum Potassium K⁺<5.0 (n=6489)	OR (95% CI)	aOR (95% CI)
Change in NIHSS score (Basesline-90 day)	7 (5-10)	7 (5-10)	--	--
mRS >2 (bad)	36.4%	41.7%	1.25 (1.00-1.58)	1.03 (0.80-1.34)
mRS score	3 (2-5)	3 (1-4)	1.35 (1.11-1.64)	1.12 (0.92-1.36)
Mortality	22.7%	16.6%	1.48 (1.13-1.93)	1.24 (0.93-1.65)

aOR: adjusted for THRIVE score, Onset-to-Treatment time, and thrombolytic use

*(This goes below table 4) Tests for interaction for dichotomous mRS outcome: VCS-20*low K p=0.492, VCS-30*low K p=0.327; for mRS shift VCS-20*low K p=0.413, VCS-30*low K p=0.297.