

## SUPPLEMENTAL TABLES

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<b>Supplemental Table 1. Symptom Questions</b>		
<b>Symptom</b>	<b>CHOICE</b>	<b>LUCID</b>
Anorexia	Loss of appetite	Lack of appetite
Nausea	Nausea or vomiting	Nausea or upset stomach
Pruritus	Dry or itchy skin	Itchy Skin
Excessive Daytime Sleep	Enough sleep during night	Sleepiness during the day
Difficulty Concentrating	Did you have difficulty doing activities involving thinking and concentration	Difficulty doing activities involving concentrating and thinking
Fatigue	Did you feel worn out	Being washed out or drained
Pain	Bodily pain	Bodily pain

<b>Supplemental Table 2. Baseline Characteristics of Symptom Survey Responders and Non-responders in CHOICE</b>			
<b>Characteristic</b>	<b>Responders</b>	<b>Non-responders</b>	<b>P</b>
<b>Sample size</b>	926	115	
<b>Demographics</b>			
Age, y	58 ± 15	57 ± 16	0.58
Male sex	491 (53%)	73 (64%)	0.03
Black race	257 (28%)	38 (33%)	0.24
<b>Clinical Characteristics</b>			
Diabetes	498 (54%)	63 (55%)	0.86
ICED score	1.9 ± 0.8	1.9 ± 0.9	0.93
Residual kidney function	749 (81%)	45 (39%)	0.43
BMI, kg/m <sup>2</sup>	27.1 ± 6.7	26.9 ± 7.1	0.69
<b>Dialysis Characteristics</b>			
Dialysis modality, hemodialysis	697 (75%)	70 (61%)	<0.001
Cause of ESKD, diabetes	423 (46%)	58 (50%)	0.43
<b>Predialysis Laboratory Tests</b>			
Blood urea nitrogen, mg/dL	56.9 ± 16.3	55.5 ± 16.2	0.47
Kt/V <sub>UREA</sub>	1.3 ± 0.4	1.4 ± 0.5	0.16
Albumin, g/dL	3.6 ± 0.4	3.6 ± 0.4	0.48
Creatinine, mg/dL	7.3 ± 2.5	7.2 ± 2.6	0.70
Calcium, mg/dL	9.1 ± 0.7	8.8 ± 0.7	0.001
Phosphate, mg/dL	5.2 ± 1.3	5.2 ± 1.3	0.87
Potassium, mEq/L	4.5 ± 0.6	4.4 ± 0.6	0.08
Glucose, mg/dL	167 ± 86	175 ± 99	0.37
Cholesterol, mg/dL	190 ± 48	189 ± 49	0.76

Values for categorical variables are given as count (percentage); values for continuous variables as mean

Abbreviations: ICED, Index of Coexistent Disease; BMI, Body Mass Index; ESKD, End Stage Kidney Disease.

Chi-square tests for categorical variables and t-tests for continuous variables were used

<b>Supplemental Table 3. Baseline Characteristics of Symptom Survey Responders and Non-responders in LUCID</b>			
<b>Characteristic</b>	<b>Responders</b>	<b>Non-responders</b>	<b><i>P</i></b>
<b>Sample size</b>	428	390	
<b>Demographics</b>			
Age, y	60 ± 15	62 ± 15	0.55
Male sex	258 (60%)	241 (62%)	0.65
Black race	137 (32%)	72 (19%)	<0.001
<b>Clinical Characteristics</b>			
Diabetes	231 (54%)	227 (58%)	0.22
Residual kidney function	379 (89%)	334 (86%)	0.21
BMI, kg/m <sup>2</sup>	28.9 ± 7.7	29.7 ± 9.6	0.19
<b>Dialysis Characteristics</b>			
Dialysis modality, hemodialysis	413 (97%)	379 (97%)	0.58
Cause of ESKD, diabetes	155 (36%)	139 (36%)	0.86

Values for categorical variables are given as count (percentage); values for continuous variables as mean

Abbreviations: BMI, Body Mass Index; ESKD, End Stage Kidney Disease.

Chi-square tests for categorical variables and t-tests for continuous variables were used

<b>Supplemental Table 4. Prevalence of Uremic Symptoms across HD/PD in CHOICE</b>			
<b>Symptom</b>	<b>HD (N = 697)</b>	<b>PD (N = 229)</b>	<b>P</b>
	<b>N (%)</b>	<b>N (%)</b>	
Fatigue	90%	88%	0.24
Anorexia	42%	51%	0.04
Pruritus	72%	72%	0.99
Sleepiness	85%	89%	0.36
Nausea/Vomiting	38%	31%	0.047
Difficulty Concentrating	54%	57%	0.59
Pain	81%	84%	0.47

<b>Supplemental Table 5. The Spearman correlation between individual symptoms in LUCID</b>							
	<b>Fatigue</b>	<b>Anorexia</b>	<b>Pruritus</b>	<b>Sleepiness</b>	<b>Nausea/Vomiting</b>	<b>Difficulty concentrating</b>	<b>Pain</b>
<b>Fatigue</b>	1						
<b>Anorexia</b>	0.30 <0.001	1					
<b>Pruritus</b>	0.28 <0.001	0.11 0.02	1				
<b>Sleepiness</b>	0.31 <0.001	0.07 0.13	0.20 <0.001	1			
<b>Nausea/Vomiting</b>	0.35 <0.001	0.45 <0.001	0.24 <0.001	0.12 0.02	1		
<b>Difficulty concentrating</b>	0.31 <0.001	0.22 <0.001	0.25 <0.001	0.22 <0.001	0.23 <0.001	1	
<b>Pain</b>	0.35 <0.001	0.23 <0.001	0.24 <0.001	0.19 <0.001	0.29 <0.001	0.27 <0.001	1

<b>Supplemental Table 6. Baseline Characteristics of Individuals Alive or Not Alive at 1-Year Follow-up in CHOICE</b>			
<b>Characteristic</b>	<b>Alive</b>	<b>Not Alive</b>	<b>P</b>
<b>Sample size</b>	585	341	
<b>Demographics</b>			
Age, y	58.3 ± 14.0	57.4 ± 16.2	0.40
Male sex	301 (52%)	190 (56%)	0.21
Black race	171 (29%)	86 (25%)	0.19
<b>Clinical Characteristics</b>			
Diabetes	315 (54%)	183 (54%)	0.97
ICED score	1.9 ± 0.8	2.0 ± 0.8	0.10
Residual kidney function	481 (82%)	268 (79%)	0.16
BMI, kg/m <sup>2</sup>	27.5 ± 6.5	26.5 ± 6.9	0.04
<b>Dialysis Characteristics</b>			
Dialysis modality, hemodialysis	452 (77%)	245 (72%)	0.07
Cause of ESKD, diabetes	275 (47%)	148 (43%)	0.38
<b>Predialysis Laboratory Tests</b>			
Blood urea nitrogen, mg/dL	56.7 ± 15.3	57.2 ± 18.0	0.75
Kt/V <sub>UREA</sub>	1.3 ± 0.4	1.4 ± 0.4	0.63
Albumin, g/dL	3.6 ± 0.4	3.6 ± 0.4	0.08
Creatinine, mg/dL	7.3 ± 2.3	7.3 ± 2.8	0.83
Calcium, mg/dL	9.1 ± 0.7	9.1 ± 0.7	0.50
Phosphate, mg/dL	5.2 ± 1.2	5.3 ± 1.5	0.12
Potassium, mEq/L	4.5 ± 0.6	4.5 ± 0.7	0.78
Glucose, mg/dL	166 ± 83	168 ± 91	0.74
Cholesterol, mg/dL	192 ± 48	188 ± 49	0.37

Values for categorical variables are given as count (percentage); values for continuous variables, as mean

Abbreviations: ICED, Index of Coexistent Disease; BMI, Body Mass Index; ESKD, End Stage Kidney Disease.

Chi-square tests for categorical variables and t-tests for continuous variables were used

Supplemental Table 7. Association of Uremic Symptom Score with Outcomes in the CHOICE Study									
			IR Per	Model 1		Model 2		Model 3	
	N	Events	1000 PY	Unadjusted	P	Age, sex, race	P	All	P
				HR (95% CI)		HR (95% CI)		HR (95% CI)	
<b>Any-Cause Death</b>	926	580	173	1.00 (0.95-1.04)	0.95	1.05 (1.01-1.10)	0.02	1.05 (1.01-1.10)	0.01
<b>Cardiac Death</b>	924	282	84	0.99 (0.94-1.05)	0.82	1.06 (1.00-1.11)	0.04	1.06 (0.99-1.12)	0.08
<b>First Cardiovascular Event</b>	926	516	204	0.99 (0.95-1.04)	0.73	1.06 (1.00-1.11)	0.03	1.05 (1.00-1.10)	0.04

Abbreviation: HR, Hazard Ratio; CI, Confidence Interval; IR, Incidence Rate; PY, Person Years.

HR represents increase in risk per 10-score decrease (worsening symptoms) in baseline uremic symptom score.

Model 1 was unadjusted.

Model 2 was adjusted for age, sex, and race.

Model 3 was adjusted for variables in Model 2 + Index of Coexisting Disease (ICED) severity score, cause of end-stage renal disease, body mass index (categorized as <18, 18 to 25 and >25 kg/m<sup>2</sup>), residual kidney function (self-reported urine volume > 250 ml), diabetes, dialysis modality, and predialysis labs (albumin, urea, Kt/Vurea, creatinine, calcium, phosphate, potassium, glucose, and cholesterol).