

Supplementary Table 1: Demographics and clinical characteristics of study cohort

Age/ Sex/ Race	Primary Reason for ICU admission	Cause of AKI	Day of CRRT initiation after ICU admission	Nutrition	Outcome at end of hospital stay	Cre mg/ dl	Ph m g/ dl	Al b g/ dl	pH	DPG μ mol/ gm Hgb	P50 mm Hg	DPG μ mol/ gm Hgb Day2
54/M /H	Septic Shock	TI	7	P	Death	3.5 9	6	3	7.4 2	21.6	29. 8	18.7
50/M /C ⁺	Septic Shock	M	2	E	Death	2.9 7	4.5	2.8	7.3 6	15.3	22. 9	10.9
66/M /C ⁺	Heart Failure	TI	33	E	HD	5.3	5.3	3.6	7.5	12.4	20. 7	10.8
54/M /C	Respirato ry Failure	TI	3	P	Death	3.7	3.7	2.9	7.4	10.5	23. 9	8.8
56/F/ C	Septic Shock	TI	5	N	Death	2.8 9	5.3	1.9	7.1 5	15.4	29. 9	13.7
79/M /C ⁺	Respirato ry Failure	M	1	E	HD	5	6.1	3.1	7.3 3	12.4	28. 8	10.3
62/M /C ⁺	Heart Failure	M	9	E	Death	4.1	4.4	2.9	7.3 3	11.8	27. 1	10.1
76/M /C	Septic Shock	TI	7	E	Death	5.2 5	4.7	4	7.3 1	13.3	32. 4	10.1
36/M /C ⁺	Heart Transpla nt	TI	2	E	R	4.9	7.8	4.4	7.2 7	9.64	32. 9	7.2

74/M /C ⁺	Surgery	TI	7	E	R	4.4	5.9	3.5	7.1 9	12.8	30. 9	11.9
49/M /C ⁺	Septic Shock	M	5	E	HD	4.9 6	6.9	2.9	7.3 6	16.8	31. 5	15.2
64/M /O	Surgery	TI	1	N	HD	2.8	4.2	3.6	7.2 9	9.89	31. 6	7.3
29/F/ C	Septic Shock	TI	1	E	R	3.5	6.2	3.8	7.2 3	17.2	32. 8	14.2
67/M /C ⁺	Endocard itis	M	3	N	R	5	6.7	3.5	7.3 8	18.3	27. 2	14.1
63/F/ C *	Surgery	M	7	E	R	6.6	4.5	3.3	7.4 2	12.1	27. 0	10.8
37/F/ C	Peritoniti s	TI	5	P	Death	3.3	6.1	3.9	7.2 4	12.0	32. 1	10.13
56/M /C ⁺	Cirrhosis/ Empyem a	TI	1	N	Death	11. 5	5.5	3.5	7.4 0	15.8	28. 2	11.8
53/M /C	PEA arrest	M	2	P	Death	4.7	6.7	4.8	7.3 5	13.5	33. 1	11.2
70/M /C	Heart Failure	TI	1	N	HD	5.7	8.7	2.9	7.3 2	8.51	30. 0	6.9
66/F/ C ⁺	Cardioge nic Shock	TI	2	N	Death	4.3	6.6	2.5	7.0 7	8.04	41. 4	6.4
Mea n ± SD						4.7 ± 1.9	5.7 ± 1.2	3.3 ± 0.7	7.3 ± .09	13.4 ± 3.4	29. 7 ± 4.4	11 ± 3.1

Legend: C, Caucasian; H, Hispanic; P, Parenteral Nutrition; E, Enteral Nutrition; N, None; D, Death; HD, Hemodialysis; M, Multifactorial (AKI secondary to acute interstitial nephritis, athero-embolic disease, and/or contrast induced nephropathy); O, other (Cambodian); R, Recovered; TI, Tubular Injury

Note: “‡” denotes patients with CKD (eGFR less than 60ml/min/1.73 m²). All patients were on ventilatory support except one (denoted by *). All laboratory levels drawn at enrollment except when indicated as Day 2.

Supplementary Table 2: Demographics and clinical characteristics of reference cohort

Age/ Sex/ Race	Primary Reason for ICU admission	ICU days	Outcome at end of hospital stay	Cre mg/dl	Ph mg/dl	Alb g/dl	pH	DPG μ mol/gm Hgb	P50 mm Hg	DPG μ mol/gm Hgb (Day 2)
79/F/ C	Mitral Valve repair	2	R	1.0	M	4	7.36	12.9	27.33	13.3
50/M /C	CABG, valve replacement	9	R	1.0	3	2.7	7.40	14.2	25.12	14.3
78/M /C	CABG	3	R	0.9	M	3.9	7.37	9.4	26.2	9
84/F/ C	Atrial valve replacement	3	R	1.2	2.9	3.9	7.37	10.2	29.7	10.6
82/F/ C ⁺	CABG	3	R	1.5	M	3.8	7.35	14.2	26.45	14.9
71/M /C ⁺	Atrial valve replacement	2	R	1.5	3.5	4.5	7.37	10	28.99	10.2
66/M /C	CABG	3	R	1.2	3	4.4	7.35	11.7	26.95	11.4
70/M /C	CABG	1	R	0.8	M	3.7	7.31	13	30.53	13.2
58/F/ C	Thoracotomy	4	R	0.5	M	4	7.36	9	29.12	9.3
82/M /C	Chest trauma	10	R	0.9	M	2.5	7.38	11.5	25.3	11.7
Mean \pm SD				1.2 \pm 0.2	3.1 \pm 0.4	3.74 \pm 0.6	7.36 \pm 0.02	11.6 \pm 1.9	27.5 \pm 1.9	11.8 \pm 2

Legend: C, Caucasian; H, Hispanic; M, Missing data; R, Recovered. **Note:** “‡” denotes patients with CKD (eGFR less than 60ml/min/1.73 m²). All laboratory levels drawn at enrollment except when indicated.