Supplementary Online Content

Greenberg JH, Zappitelli M, Devarajan P, et al; TRIBE-AKI Consortium. Kidney outcomes 5 years after pediatric cardiac surgery: the TRIBE-AKI study. *JAMA Pediatr*. Published online September 12, 2016. doi:10.1001/jamapediatrics.2016.1532.

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This supplementary material has been provided by the authors to give readers additional information about their work.

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Greenberg JH, Zappitelli M, Devarajan P, Thiessen-Philbrook HR, Krawczeski C, Li S, Garg AX, Coca S, Parikh CR, for the TRIBE-AKI Consortium. Kidney Outcomes Five Years after Pediatric Cardiac Surgery.

On-line Only Supplemental Material

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eMethods

Analyte Measurements: Blood and urine were centrifuged and stored at each site as 0.2ml (plasma) and 1.0ml (urine) aliquots in a -80˚C freezer, within six hours from collection. Cincinnati Children's Hospital and Montreal Children's Hospital made monthly shipments of biospecimens on dry ice to Yale University. All shipped biospecimens were stored at Yale University in a -80˚C freezer until laboratory measurements were performed. Serum creatinine and urine creatinine were measured by IDMS-traceable assay and urine albumin was measured by immunoturbidimetry at the Yale-New Haven Hospital Clinical Laboratory. (Roche Diagnostics P800 chemistry analyzer). Serum cystatin C was measured by turbidimetric assay using a Roche COBAS 6000 chemistry analyzer at the University of Minnesota. Samples were analyzed according to the manufacturer's specifications and individuals performing measurements were blind to clinical outcomes. Serum creatinine and cystatin C measurements were repeated in 30% of baseline specimens to exclude assay drift. Urine dipstick was also performed on the same day of the visit using a Clinitek Status urinanalyzer (Siemens, Munich, Germany). Urine biomarkers were measured as previously described.[14,15] Briefly, urine neutrophil gelatinase–associated lipocalin (NGAL) and interleukin 18 (IL-18) were measured using an assay (ARCHITECT; Abbott Diagnostics) with coefficients of variation of 5% and 8%, respectively. Kidney injury molecule 1 (KIM-1) and liver fatty acid–binding protein (L-FABP) were measured in multiplex format (Multi-Assay; MesoScale Discovery). The intraassay coefficient of variation is 10% or less for both KIM-1 and L-FABP assays.

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eTable 1: Baseline Characteristics between those with and without follow-up visits

	Follow-up completed (n=131)	Follow-up not completed (n=180)	P value
Age (months) (median [IQR])	31.9 [6.0, 58.6]	13.2 [4.7, 67.4]	0.52
sex M	68 (52%)	103 (57%)	0.35
RACHS-1 Score			
1	7 (5%)	11 (6%)	0.98
2	66 (51%)	87 (49%)	
3	52 (40%)	74 (41%)	
4	5 (4%)	7 (4%)	
CPB Time	92 [65, 125]	101 [66, 139]	0.28
Cross Clamp Time	38 [0, 64]	42 [0, 72]	0.38
AKIN AKI Stages			
No AKI	74 (56%)	106 (59%)	0.44
Stage 1	46 (35%)	53 (29%)	
Stage 2	7 (5%)	17 (9%)	
Stage 3	4 (3%)	4 (2%)	
Dialysis	3 (2%)	2 (1%)	0.41
In hospital Death	0 (0%)	6 (3%)	0.03

Abbreviations: **IQR**, interquartile range, **RACHS**, risk adjustment for congenital heart surgery, **CPB**, cardiopulmonary bypass, **AKIN**, Acute Kidney Injury Network, **AKI**, Acute Kidney Injury, **N/A**, not available. Results reported as n(%) or median (25th percentile, 75th percentile). Results reported as n(%) or median (25th percentile, 75th percentile).

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eTable 2: Baseline and post-operative characteristics of study cohort by 5-year chronic kidney disease (CKD) status

	Overall (n=116)	CKD (n=21)	No CKD (n=95)	P-value
Pre-operative/baseline				
Age (months), (median (IQR))	6.1 (36.1, 58.9)	37.4 (6, 68.9)	35.76 (6.1, 58.6)	0.75
Male gender	62 (53%)	12 (57%)	50 (53%)	0.71
Non-white	15 (13%)	4 (19%)	11 (12%)	0.36
ACE inhibitor	22 (19%)	5 (24%)	17 (18%)	0.53
Loop diuretics	28 (24%)	5 (24%)	23 (24%)	0.97
Potassium sparing diuretics	10 (9%)	1 (5%)	9 (9%)	0.49
Aspirin	14 (12%)	5 (24%)	9 (9%)	0.07
Pre-operative estimated SCr-GFR (median (IQR))	79.2 (92.9, 112.5)	82.6 (72.3, 88.5)	95.5 (82.6, 115.2)	0.02
Pre-operative CKD‡	43 (37%)	13 (62%)	30 (32%)	0.01
RACHS-1 surgical category 1	7 (6%)	2 (10%)	5 (5%)	0.89
RACHS-1 surgical category 2	54 (47%)	10 (48%)	44 (47%)	0.89
RACHS-1 surgical category 3	49 (43%)	8 (38%)	41 (44%)	0.89
RACHS-1 surgical category 4	5 (4%)	1 (5%)	4 (4%)	0.89
Type of Surgery				
Septal Defect Repair	39 (36%)	9 (45%)	30 (34%)	0.60
Inflow/Outflow tract or valve procedure	33 (30%)	4 (20%)	18 (20%)	
Combined Procedure	48 (44%)	7 (35%)	41 (46%)	
Hospital outcomes				
Peak post-op SCr rise from baseline (median (IQR))	0.18 (0.33, 0.67)	0.25 (0, 0.33)	0.5 (0.2, 0.67)	0.02
Renal replacement	3 (3%)	0	3 (3%)	0.41
ICU length of stay (median (IQR))	1 (2, 4)	3 (1, 4)	2 (1, 3)	0.30
Hospital length of stay (median (IQR))	4 (5, 7.5)	6 (4, 10)	5 (4, 7)	0.28

Abbreviations: **IQR**, interquartile range, **SCr,** serum creatinine (in mg/dl. 1mg/dl = 88.4 µmole/L), **GFR**, glomerular filtration rate (ml/min/1.73m^2), ‡Pre-op CKD defined as eGFR < age-based thresholds or microalbuminuria < age-based thresholds: defined as age-based GFR thresholds: <90 ml/min/1.73m^2 for ≥2 years; <76 for 1.5-2 years; <74 for 1-1.5 years, <65 for <1 year, <58 for 3months-8 months. Pre-op microalbuminuria defined by age-based albumin to creatinine ratio thresholds: >30mg/g for ≥2 years, >75 for 6months-2 years. **RACHS-1**, risk adjustment for congenital heart surgery.

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eTable 3: Baseline and post-operative characteristics of study cohort by severe AKI status

Characteristic	Overall (n=131)	Severe AKI (n=21)	No Severe AKI (n=110)	P value
Pre-operative/baseline				
Age (months), (median (IQR))	6 (31.92, 58.56)	11.4 (6.36, 46.44)	35.58 (6, 59.16)	0.37
Male gender	68 (52%)	12 (57%)	56 (51%)	0.60
Non-white	20 (15%)	3 (14%)	17 (15%)	0.89
ACE inhibitor	26 (20%)	5 (24%)	21 (19%)	0.62
Loop diuretic	34 (26%)	8 (38%)	26 (24%)	0.17
Potassium Sparing diuretic	14 (11%)	4 (19%)	10 (9%)	0.18
ASA	15 (11%)	2 (10%)	13 (12%)	0.76
Pre-operative estimated SCr-GFR (median (IQR))	78.47 (92.72, 110.13)	97.06 (87.42, 125.97)	90.86 (78.47, 107.38)	0.08
Pre-operative SCr-GFR percentile (mean +/- std dev)	59.27 (33.24)	73.29 (30.12)	56.6 (33.26)	0.03
RACHS-1 surgical category 1	7 (5%)	0	7 (6%)	0.03
RACHS-1 surgical category 2	66 (51%)	9 (43%)	57 (52%)	0
RACHS-1 surgical category 3	52 (40%)	9 (43%)	43 (39%)	0
RACHS-1 surgical category 4	5 (4%)	3 (14%)	2 (2%)	0
Hospital renal outcomes				
Peak post-op SCr rise from baseline (median (Q1,Q3))	0.2 (0.33, 0.67)	1.25 (1, 1.5)	0.33 (0, 0.5)	<.01
CRRT	1 (33%)	1 (33%)	0	0.07
Peritoneal dialysis	2 (67%)	2 (67%)	0	0

Abbreviations: **AKI**, Acute Kidney Injury, **IQR**, interquartile range, **SCr,** serum creatinine (in mg/dl. 1mg/dl = 88.4 µmole/L), **GFR**, glomerular filtration rate (ml/min/1.73m^2), **RACHS-1**, risk adjustment for congenital heart surgery, **CRRT**, continuous renal replacement therapy

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eTable 4. Five-year outcomes by severe acute kidney injury (AKI) status

Characteristics	Overall (n=131)	Severe AKI (n=21)	Non-AKI (n=110)	P-value
Visit examination				
Height z-score (median [IQR])	-0.56 [-1.6, 0.5]	-0.8 [-1.53, 0.29]	-0.51 [-1.61, 0.56]	0.58
Weight z-score	-0.14 [-1.01, 0.61]	-0.76 [-1.68, 0.47]	-0.1 [-0.82, 0.65]	0.08
BMI z-score	0.36 [-0.45, 1.05]	-0.26 [-1.24, 0.52]	0.39 [-0.25,1.07]	0.05
Blood pressure				
Systolic BP z-score	0.41 [-0.21, 1.03]	0.56 [0.12, 1.02]	0.33 [-0.22, 1.09]	0.64
Diastolic BP z-score	-0.01 [-0.27, 0.35]	0.02 [-0.16, 0.31]	-0.02 [-0.31, 0.38]	0.79
Systolic Pre-HTN	12 (9%)	1 (5%)	11 (10%)	0.43
Systolic HTN	14 (11%)	1 (5%)	13 (12%)	0.43
Diastolic Pre-HTN	8 (6%)	0	8 (7%)	0.30
Diastolic HTN	4 (3%)	0	4 (4%)	0.30
Pre-HTN	6 (5%)	1 (5%)	5 (5%)	0.11
HTN (BP or self-report)	22 (17%)	1 (5%)	21 (19%)	0.11
Proteinuria				
Negative	109 (90%)	20 (100%)	89 (88%)	0.27
Trace	5 (4%)	0	5 (5%)	0.27
Small	7 (6%)	0	7 (7%)	0.27
Large	0	0	0	0.27
Albumin to creatinine ratio (mg/g), (median [IQR]),	5.1 [2.39, 12.13]	4.74 [2.3, 9.21]	5.45 [2.76, 12.83]	0.49
Microalbuminuria (Alb Cre > 30 mg/g)	9 (8%)	1 (6%)	8 (8%)	0.70
Renal function (GFR)				
SCr-eGFR (median [IQR])	101.22 [111.66, 125.53]	125.28 [105.05, 134.06]	110.89 [99.02, 123.53]	0.10
SCr-eGFR abnormal for age (<90)	13 (13%)	0	13 (15%)	0.14
SCr-eGFR < 60	1 (1%)	0	1 (1%)	0.70
CKD (SCr-eGFR <90 or microalbuminuria)	21 (18%)	1 (6%)	20 (20%)	0.13
Nephrologist F/U	5 (4%)	1 (5%)	4 (4%)	0.81
Family history of renal disease	61 (47%)	10 (48%)	51 (46%)	0.91
At least 1 hospital/ER readmission	32 (24%)	7 (33%)	25 (23%)	0.30

Abbreviations: **IQR**, interquartile range, **BMI**, body mass index, **HTN**, hypertension, **GFR**, glomerular filtration rate (ml/min/1.73m^2), **SCr**, serum creatinine (in mg/dl. 1mg/dl = 88.4 µmole/L), **CKD**, chronic kidney disease, **AKI**, Acute Kidney Injury **F/U**, follow-up, **ER**, emergency room, **N/A**, not available

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eTable 5: Pediatric studies of hypertension prevalence

Author, Year published	Population	BP definition	Ascertainment of BP	Years	Age range (years)
Hansen et al., 2007	Northeast Ohio, USA	Sys or Dias ≥95% X 3 visits	Automatic BP cuff and confirmed with manual BP	1999-2006	3-18
Lo et al., 2013	Kaiser (California, Colorado, Minnesota), USA	Sys or Dias ≥95% X 3 visits	Automatic or manual BP cuff	2007-2009	3-17
Xi et al., 2016	National Health and Nutrition Examination Survey	Sys or Dias ≥95% X 3 visits	Automatic or manual BP cuff	2009-2012	8-17

Abbreviations: **BP**, blood pressure, **%**, percentile, **Sys**, systolic, **Dias**, Diastolic, **N/A**, not available

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eTable 6: Peri-operative biomarker results and 5-year hypertension

Biomarker		Overall	Hypertension	No Hypertension	P-value
Urine albumin	Pre-op	27.64 (45.1) [4.1, 9.4, 29.8] N=117	17.32 (29.57) [2.8, 6.2, 17.8] N=19	29.64 (47.38) [4.2, 11.2, 35] N=98	0.11
	Day 1 0-6 Hours	71.68 (107.7) [11.7, 30.9, 93.6] N=129	49.11 (63.17) [12, 16.8, 81.4] N=21	76.07 (114.06) [11.3, 32.05, 96.85] N=108	0.40
Urine Albumin to Creatinine Ratio	Pre-op	80.24 (210.2) [10.95, 23.64, 75.45] N=117	131.59 (476.51) [10.01, 22.43, 33.46] N=19	70.29 (100.43) [10.96, 26.62, 88.49] N=98	0.18
	Day 1 0-6 Hours	424.78 (740.9) [64.28, 126.7, 483.7] N=129	307.31 (431.07) [68.03, 108.23, 355.95] N=21	447.62 (786.57) [63.18, 136.92, 491.27] N=108	0.54
Urine IL-18	Pre-op	83.95 (310.26) [8.04, 18.84, 48.15] N=125	23.95 (22.12) [7.18, 16.4, 48.77] N=20	95.38 (337.43) [8.49, 19.84, 47.46] N=105	0.37
	Day 1 0-6 Hours	291.81 (1081.08) [14.78, 43.98, 182.72] N=131	118.52 (218.24) [10.45, 58.53, 122.84] N=22	326.79 (1179.07) [15.49, 43.42, 200.22] N=109	0.66
Urine IL-18 Creatinine Corrected	Pre-op	1.83 (4.67) [0.24, 0.51, 1.24] N=125	0.79 (0.64) [0.22, 0.8, 1.22] N=20	2.03 (5.06) [0.24, 0.5, 1.24] N=105	0.81
	Day 1 0-6 Hours	17.37 (54.22) [0.9, 2.23, 8.06] N=131	5.57 (9.88) [0.86, 3.18, 4.88] N=22	19.75 (59.04) [0.91, 1.9, 8.06] N=109	0.81
Urine NGAL	Pre-op	12.14 (37.01) [1.94, 4.15, 7.74] N=125	18.7 (66.35) [1.81, 3.61, 4.8] N=20	10.89 (28.62) [1.97, 4.34, 8.7] N=105	0.26
	Day 1 0-6 Hours	115.33 (414.81) [2.99, 8.4, 34.38] N=131	23.57 (31.57) [2.99, 6.91, 44.71] N=22	133.85 (452.62) [3.02, 9.44, 33.67] N=109	0.68
Urine NGAL Creatinine Corrected	Pre-op	0.54 (3.21) [0.04, 0.08, 0.25] N=125	0.47 (1.48) [0.05, 0.11, 0.21] N=20	0.55 (3.45) [0.04, 0.08, 0.25] N=105	0.80
	Day 1 0-6 Hours	6.21 (20.31) [0.14, 0.47, 1.71] N=131	1.27 (1.92) [0.24, 0.38, 1.92] N=22	7.21 (22.14) [0.14, 0.49, 1.64] N=109	0.74
Plasma NGAL	Pre-op	86.43 (51.82) [60, 61.28, 97.82] N=123	88.11 (31.58) [60, 78.38, 105.18] N=21	86.09 (55.18) [60, 60, 94.34] N=102	0.21
	Day 1 0-6 Hours	162.48 (111.47) [83.15, 130.32, 183.64] N=121	167.97 (116.68) [86.74, 125.43, 181.05] N=21	161.33 (110.92) [82.92, 130.51, 185.04] N=100	0.93
Urine KIM-1	Pre-op	0.82 (0.99) [0.22, 0.55, 0.98] N=124	0.51 (0.44) [0.07, 0.42, 0.78] N=20	0.88 (1.05) [0.23, 0.56, 1.05] N=104	0.17
	Day 1 0-6 Hours	0.59 (0.61) [0.19, 0.4, 0.8] N=130	0.48 (0.43) [0.18, 0.35, 0.66] N=21	0.61 (0.64) [0.2, 0.4, 0.82] N=109	0.36
Urine KIM-1 Creatinine Corrected	Pre-op	0.02 (0.02) [0.01, 0.01, 0.02] N=124	0.01 (0.01) [0.01, 0.01, 0.02] N=20	0.02 (0.02) [0.01, 0.01, 0.02] N=104	0.52

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Biomarker		Overall	Hypertension	No Hypertension	P-value
	Day 1 0-6 Hours	0.03 (0.03) [0.01, 0.02, 0.03] N=130	0.03 (0.02) [0.01, 0.02, 0.03] N=21	0.03 (0.04) [0.01, 0.02, 0.04] N=109	0.65
Urine L-FABP	Pre-op	8.45 (22.05) [1.36, 3.24, 6.77] N=124	3.71 (4.14) [1.13, 2.33, 5.68] N=20	9.36 (23.92) [1.41, 3.37, 7.3] N=104	0.24
	Day 1 0-6 Hours	227.95 (372.21) [13.46, 58.62, 259.51] N=130	149.06 (279.68) [8.53, 23.47, 144.53] N=21	243.15 (386.72) [19.17, 65.96, 267.2] N=109	0.21
Urine L-FABP Creatinine Corrected	Pre-op	0.28 (0.9) [0.04, 0.08, 0.19] N=124	0.17 (0.28) [0.04, 0.06, 0.15] N=20	0.3 (0.98) [0.04, 0.09, 0.19] N=104	0.69
	Day 1 0-6 Hours	15.09 (37.03) [0.74, 3.01, 13.35] N=130	8.25 (16.84) [0.58, 1.56, 9.85] N=21	16.41 (39.68) [0.75, 3.44, 14.53] N=109	0.36

Results are presented mean (SD) [p25, median, 75] N

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eTable 7: Peri-operative biomarker results and 5-year CKD

Biomarker		Overall	CKD	No CKD	P-value
Urine albumin	Pre-op	26.15 (45.65) [4.1, 8.4, 24.5] N=105	38.97 (64.64) [3.1, 11.7, 50.5] N=19	23.31 (40.25) [4.2, 8.3, 20.3] N=86	0.11
	Day 1 0-6 Hours	66.53 (102.75) [10.9, 28.65, 93.2] N=114	53.79 (63.38) [8.9, 43, 68.4] N=21	69.41 (109.77) [11.7, 25.8, 93.6] N=93	0.40
Urine Albumin to Creatinine Ratio	Pre-op	75.01 (215.99) [10.96, 22.89, 63.79] N=105	96.28 (148.23) [14.6, 27.17, 127.26] N=19	70.32 (228.7) [10.95, 22.51, 63.12] N=86	0.18
	Day 1 0-6 Hours	373.67 (573.9) [63.75, 121.59, 452.31] N=114	220.68 (220.28) [68.03, 103.5, 374.77] N=21	408.22 (622.45) [59.73, 126.7, 483.7] N=93	0.54
Urine IL-18	Pre-op	84.24 (325.19) [7.75, 18.58, 46.02] N=112	85.88 (294.71) [7.86, 15.12, 35.47] N=20	83.88 (332.95) [7.57, 19.18, 47.81] N=92	0.37
	Day 1 0-6 Hours	304.46 (1144.93) [13.01, 43.17, 164.58] N=116	277.55 (637.23) [10.39, 55.95, 182.72] N=21	310.41 (1231.72) [13.3, 40.43, 161.55] N=95	0.66
Urine IL-18 Creatinine Corrected	Pre-op	1.74 (4.74) [0.2, 0.49, 1.06] N=112	2.18 (7.24) [0.13, 0.48, 1.08] N=20	1.64 (4.05) [0.25, 0.49, 1.06] N=92	0.81
	Day 1 0-6 Hours	17.17 (56.15) [0.87, 1.78, 8.03] N=116	17.57 (50.64) [0.71, 1.4, 9.4] N=21	17.09 (57.54) [0.95, 1.81, 7.99] N=95	0.81
Urine NGAL	Pre-op	10.33 (31.98) [1.84, 3.86, 7.11] N=112	12.62 (23.31) [2.37, 4.92, 8.08] N=20	9.83 (33.65) [1.65, 3.78, 6.97] N=92	0.26
	Day 1 0-6 Hours	115.44 (432.73) [2.95, 8.61, 34.03] N=116	167.07 (674.72) [3.96, 7.08, 21.25] N=21	104.03 (362.63) [2.58, 9.44, 43.09] N=95	0.68
Urine NGAL Creatinine Corrected	Pre-op	0.26 (0.71) [0.04, 0.08, 0.23] N=112	0.22 (0.34) [0.05, 0.16, 0.25] N=20	0.26 (0.77) [0.04, 0.07, 0.22] N=92	0.80
	Day 1 0-6 Hours	5.79 (19.81) [0.12, 0.47, 1.54] N=116	5.98 (22.52) [0.21, 0.52, 0.94] N=21	5.75 (19.3) [0.12, 0.46, 1.86] N=95	0.74
Plasma NGAL	Pre-op	86.4 (52.14) [60, 62.44, 97.82] N=110	75.51 (21.65) [60, 60, 94.59] N=20	88.81 (56.54) [60, 64.92, 100.95] N=90	0.21
	Day 1 0-6 Hours	166.15 (112.73) [86.74, 130.69, 186.44] N=107	201.2 (152.1) [83.34, 147.52, 283.57] N=19	158.59 (101.84) [86.92, 130.51, 180.33] N=88	0.93
Urine KIM-1	Pre-op	0.81 (1.02) [0.17, 0.51, 0.86] N=111	0.8 (1.09) [0.16, 0.48, 0.7] N=19	0.81 (1.02) [0.2, 0.53, 0.89] N=92	0.17
	Day 1 0-6 Hours	0.56 (0.58) [0.19, 0.38, 0.79] N=115	0.69 (0.51) [0.27, 0.71, 0.92] N=21	0.54 (0.59) [0.18, 0.36, 0.72] N=94	0.36
Urine KIM-1 Creatinine Corrected	Pre-op	0.02 (0.01) [0.01, 0.01, 0.02] N=111	0.01 (0.01) [0.01, 0.01, 0.02] N=19	0.02 (0.01) [0.01, 0.01, 0.02] N=92	0.52

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Biomarker		Overall	CKD	No CKD	P-value
	Day 1 0-6 Hours	0.03 (0.02) [0.01, 0.02, 0.03] N=115	0.03 (0.03) [0.01, 0.02, 0.04] N=21	0.03 (0.02) [0.01, 0.02, 0.03] N=94	0.65
Urine L-FABP	Pre-op	7.56 (20.73) [1.34, 2.65, 6.48] N=111	4.87 (5.22) [1.12, 3.27, 8.86] N=19	8.12 (22.63) [1.41, 2.57, 6.3] N=92	0.24
	Day 1 0-6 Hours	219.58 (358.96) [8.63, 56.02, 261.06] N=115	258.84 (373.62) [21.22, 142.71, 342.72] N=21	210.81 (357.08) [8.53, 52.76, 259.51] N=94	0.21
Urine L-FABP Creatinine Corrected	Pre-op	0.23 (0.86) [0.04, 0.08, 0.18] N=111	0.11 (0.09) [0.04, 0.08, 0.15] N=19	0.26 (0.94) [0.03, 0.08, 0.19] N=92	0.69
	Day 1 0-6 Hours	14.01 (35.72) [0.68, 2.92, 13.58] N=115	14.34 (21.45) [0.8, 4.43, 20.1] N=21	13.94 (38.28) [0.58, 2.46, 13.35] N=94	0.36

Results are presented mean (SD) [p25, median, 75] N

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eTable 8: Association of kidney injury and 5-year renal outcomes

AKI definition	Outcome	Overall	No Injury† (no elevated biomarker)	Kidney Injury (elevated biomarker)	P-value
Urine IL-18	Microalbuminuria No	107 (92%)	91 (92%)	16 (94%)	0.75
	Microalbuminuria Yes	9 (8%)	8 (8%)	1 (6%)	
	eGFR	113.74 (24.88) [101.22, 111.66, 125.53] N=101	114.33 (24.11) [100.72, 111.58, 125.36] N=88	109.73 (30.43) [101.75, 115.12, 125.95] N=13	0.54
	CKD No	95 (82%)	82 (83%)	13 (76%)	0.53
	CKD Yes	21 (18%)	17 (17%)	4 (24%)	
	Hypertension No	109 (83%)	90 (81%)	19 (95%)	0.13
	Hypertension Yes	22 (17%)	21 (19%)	1 (5%)	
Urine NGAL	Microalbuminuria No	107 (92%)	92 (92%)	15 (94%)	0.81
	Microalbuminuria Yes	9 (8%)	8 (8%)	1 (6%)	
	eGFR	113.74 (24.88) [101.22, 111.66, 125.53] N=101	113.27 (24.1) [99.96, 111.51, 125.28] N=87	116.65 (30.16) [101.93, 112.48, 142.78] N=14	0.41
	CKD No	95 (82%)	82 (82%)	13 (81%)	0.94
	CKD Yes	21 (18%)	18 (18%)	3 (19%)	
	Hypertension No	109 (83%)	92 (82%)	17 (89%)	0.43
	Hypertension Yes	22 (17%)	20 (18%)	2 (11%)	
Plasma NGAL	Microalbuminuria No	100 (93%)	86 (95%)	14 (88%)	0.30
	Microalbuminuria Yes	7 (7%)	5 (5%)	2 (13%)	
	eGFR	112.59 (24.95) [99.02, 111.44, 125.36] N=92	113.85 (24.54) [100.22, 111.36, 125.44] N=79	104.96 (27.1) [93.39, 111.66, 125.28] N=13	0.54
	CKD No	88 (82%)	77 (85%)	11 (69%)	0.13
	CKD Yes	19 (18%)	14 (15%)	5 (31%)	
	Hypertension No	100 (83%)	86 (83%)	14 (78%)	0.55
	Hypertension Yes	21 (17%)	17 (17%)	4 (22%)	
Urine KIM-1	Microalbuminuria No	106 (92%)	95 (93%)	11 (85%)	0.28
	Microalbuminuria Yes	9 (8%)	7 (7%)	2 (15%)	
	eGFR	113.74 (24.88) [101.22,	113.84 (25.88)	112.91 (15.16) [101.75,	0.99

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AKI definition	Outcome	Overall	No Injury† (no elevated biomarker)	Kidney Injury (elevated biomarker)	P-value
		111.66, 125.53] N=101	[100.22, 111.58, 125.53] N=90	113.31, 125.95] N=11	
	CKD No	94 (82%)	84 (82%)	10 (77%)	0.63
	CKD Yes	21 (18%)	18 (18%)	3 (23%)	
	Hypertension No	109 (84%)	96 (83%)	13 (87%)	0.75
	Hypertension Yes	21 (16%)	19 (17%)	2 (13%)	
Urine L-FABP	Microalbuminuria No	106 (92%)	72 (94%)	34 (89%)	0.45
	Microalbuminuria Yes	9 (8%)	5 (6%)	4 (11%)	
	eGFR	113.74 (24.88) [101.22, 111.66, 125.53] N=101	113.19 (20.52) [101.56, 112.64, 125.61] N=68	114.86 (32.42) [100.22, 108.29, 125.53] N=33	0.77
	CKD No	94 (82%)	64 (83%)	30 (79%)	0.59
	CKD Yes	21 (18%)	13 (17%)	8 (21%)	
	Hypertension No	109 (84%)	71 (82%)	38 (88%)	0.32
	Hypertension Yes	21 (16%)	16 (18%)	5 (12%)	

†Kidney injury defined as elevated biomarkers measured on day 1 0-6 hours. Elevated biomarkers defined as values higher than the 5th quintile in the TRIBE in-hospital cohort; Urine IL-18>362 pg/mL, Urine NGAL>70 ng/mL, Plasma NGAL>259 ng/mL, Urine KIM-1>0.99 ng/mL, Urine L-FABP>399 ng/mL. Results are presented as mean (SD) [p25, median, p75].

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