

Supplemental Table 1: Performance of the Final model in the training and validation Cohorts

	Training Set	Validation Set
Stage 1 AKI AUC (95%CI)	0.75 (0.75 – 0.75)	0.74 (0.74 – 0.74)
Stage 2 AKI AUC (95%CI)	0.77 (0.77 – 0.77)	0.76 (0.76 – 0.77)
Stage 3 AKI AUC (95%CI)	0.84 (0.83 – 0.84)	0.83 (0.83 – 0.84)

Supplemental Table 2: Supplemental Table 1: Variable Coefficients from the Linear Model to Predict Ward-Based AKI

Variable	Coefficient	P-value
Age, years	0.008	<0.001
Female	0.082	<0.001
Prior ICU stays	0.244	<0.001
Heart rate, beats per minute	0.011	<0.001
Respiratory rate, breaths per minute	0.041	<0.001
Systolic blood pressure, mm Hg	-0.007	<0.001
Diastolic blood pressure, mm Hg	-0.018	<0.001
Pulse pressure index	-0.643	<0.001
Temperature, degrees Celsius	0.120	<0.001
Oxygen saturation, %	-0.031	<0.001
Alert	Reference	NA
Responds to Voice	0.397	<0.001
Responds to Pain	-0.047	0.621
Unresponsive	-0.078	0.648
Sodium, mEq/L	-0.020	<0.001
Potassium, mEq/L	0.176	<0.001
Bicarbonate, mEq/L	0.017	<0.001
Anion gap, mEq/L	0.088	<0.001
BUN, mg/dL	-0.031	<0.001
Creatinine, mg/dL	1.841	<0.001
BUN-creatinine ratio	0.034	<0.001
Glucose, mg/dL	0.002	<0.001
Calcium, mg/L	-0.059	<0.001
WBC, K/ μ L	0.003	<0.001
Hemoglobin, g/dL	0.024	<0.001
Platelets, K/ μ L	-0.0004	<0.001
Total protein, g/dL	0.043	<0.001
Albumin, g/dL	-0.153	<0.001
Total bilirubin, mg/dL	0.033	<0.001
AST, U/L	0.0003	<0.001
Alkaline phosphatase, U/L	-0.00002	0.818

Supplemental Table 3: Comparison of the Final-AKI model to other early warning scores for ward based patients.

	Final AKI model	MEWS	eCART Score
Stage 1 AKI	0.74 (0.74 – 0.74)	0.58 (0.58 – 0.59)	0.69 (0.69 – 0.69)
Stage 2 AKI	0.76 (0.76 – 0.77)	0.65 (0.65 - 0.66)	0.74 (0.73 – 0.74)
Stage 3 AKI	0.83 (0.83 – 0.84)	0.66 (0.65 – 0.66)	0.77 (0.77 – 0.78)

MEWS – Modified Early Warning Score

eCART – Electronic Cardiac Arrest Risk Triage