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Supplementary Table S1. Baseline laboratory blood results within 48 hours of admission. ¶			
Variables	No AKI (N = 3456)	AKI (N = 1993)	P value *
Complete blood count †			
White blood cell count, 1000/µL	6.7 (5.1, 9.0)	7.5 (5.6, 10.4)	<0.001
Hemoglobin, g/L	13.5 (12.3, 14.6)	13.4 (11.9, 14.6)	0.013
Platelet count, 1000/µL	203.0 (159.0, 259.0)	195.5 (149.0, 254.0)	<0.001
Basic metabolic panel †			
Sodium, mmol/L	136.0 (133.0, 138.0)	136.0 (132.0, 139.0)	0.76
Potassium, mmol/L	4.0 (3.7, 4.4)	4.1 (3.7, 4.6)	<0.001
Chloride, mmol/L	99.0 (96.0, 102.0)	99.0 (95.0, 103.0)	0.672
Carbon Dioxide, mmol/L	24.0 (22.0, 26.0)	23.0 (20.0, 25.0)	<0.001
Blood Urea Nitrogen, mg/dL	14.0 (10.0, 20.0)	23.0 (14.75, 37.0)	<0.001
Creatinine, mg/dL	0.95 [0.77, 1.16]	1.23 (0.91, 1.8)	<0.001
Glucose, mg/dL	118.0 (104.0, 146.0)	137.0 (115.00, 191.0)	<0.001
Total Calcium, mg/dL	8.8 (8.5, 9.1)	8.70 (8.40, 9.1)	<0.001
Liver Function Test †			
Alanine Aminotransferase, U/L	34.0 (22.0, 57.0)	34.0 (22.0, 53.0)	0.16
Aspartate Aminotransferase, U/L	44.0 (30.0, 67.0)	52.0 (35.0, 79.0)	<0.001
Alkaline Phosphatase, U/L	70.0 (56.0, 90.0)	73.5 (59.0, 95.8)	<0.001
Albumin, g/L	3.5 (3.2, 3.9)	3.4 (2.9, 3.8)	<0.001
Total Bilirubin mg/dL	0.5 (0.4, 0.7)	0.5 (0.4, 0.7)	<0.001
Lactate Dehydrogenase, U/L	370.0 (283.5, 496.0)	480.0 (354.0, 646.0)	§
Missing (%)	1313 (40.0)	702 (35.2)	
Creatine Kinase, U/L	148.0 (79.0, 308.0)	234.5 (113.8, 592.3)	§
Missing (%)	2300 (70.0)	1121 (56.3)	
Procalcitonin, ng/mL	0.15 (0.08, 0.32)	0.33 (0.15, 0.90)	§
Missing (%)	1171 (30.0)	601 (30.2)	
Ferritin, ng/mL	722.0 (364.0, 1324.0)	867.0 (495.0, 1554.0)	§
Missing (%)	1083 (30.0)	612 (30.7)	
Lactate, mmol/L	1.4 (1.1, 1.9)	1.7 (1.3, 2.4)	§
Missing (%)	2188 (60.0)	1000 (50.2)	
C-reactive Protein, mg/dL	11.5 (5.7, 24.3)	15.5 (8.3, 29.0)	§
Missing (%)	998 (30.0)	522 (26.2)	
D-Dimer assay, ng/mL	342.0 (223.0, 582.0)	525.0 (314.00, 1075.0)	§
Missing (%)	1859 (50.0)	936 (47.0)	

¶ Data are expressed as medians (interquartile ranges).
† Missing data was <1%
* Comparisons are made between No AKI and AKI using nonparametric Kruskal Wallis test for continuous variables.
§ Due to the amount of missing data, we did not make comparison between No AKI and AKI.

Supplementary Table S2. Comparison analysis of risk factors associated with the development of acute kidney injury when including BMI in the multivariate logistic regression model vs excluding BMI in the model.

Variable	Including BMI in Model			Excluding BMI in Model		
	Adjusted OR ‡	95% CI	P Value	Adjusted OR ‡	95% CI	P Value
Age, years	1.03	1.03-1.04	< 0.001*	1.03	1.03-1.04	< 0.001*
Male	1.14	0.97-1.33	0.10	1.13	0.97-1.32	0.07
White race	Reference	Reference	Reference	Reference	Reference	Reference
Asian	0.83	0.61-1.12	0.23	0.81	0.60-1.10	0.17
Black	1.23	1.01-1.50	0.04*	1.23	1.01-1.51	0.04*
Other/ mixed	0.84	0.69-1.03	0.09	0.84	0.68-1.02	0.08
Unknown	0.74	0.50-1.11	0.15	0.74	0.49-1.10	0.13
Tertiary Hospital	0.90	0.77-1.06	0.20	0.90	0.76-1.05	0.19
Diabetes mellitus	1.76	1.49-2.07	<0.001*	1.77	1.50-2.08	< 0.001*
Hypertension	1.25	1.04-1.50	0.02*	1.26	1.04-1.51	0.02*
Cardiovascular Disease ¶	1.48	1.22-1.80	<0.001*	1.48	1.22-1.80	<0.001*
Obesity (BMI ≥30kg/m²)	1.11	0.94-1.31	0.22	–	–	–
Cancer	1.09	0.82-1.45	0.54	1.10	0.82-1.46	0.53
Mechanical ventilation	10.7	6.81-16.70	< 0.001*	10.7	6.83-16.8	< 0.001*
Vasoactive medication §	4.53	2.88-7.13	< 0.001*	4.55	2.89-7.17	< 0.001*
ACE-I or ARB use	0.87	0.73-1.04	0.12	0.88	0.73-1.04	0.14

Abbreviation: ACE-I, Angiotensin-converting enzyme inhibitor; ARB, Angiotensin II receptor blocker; BMI, body mass index; OR, odds ratio.

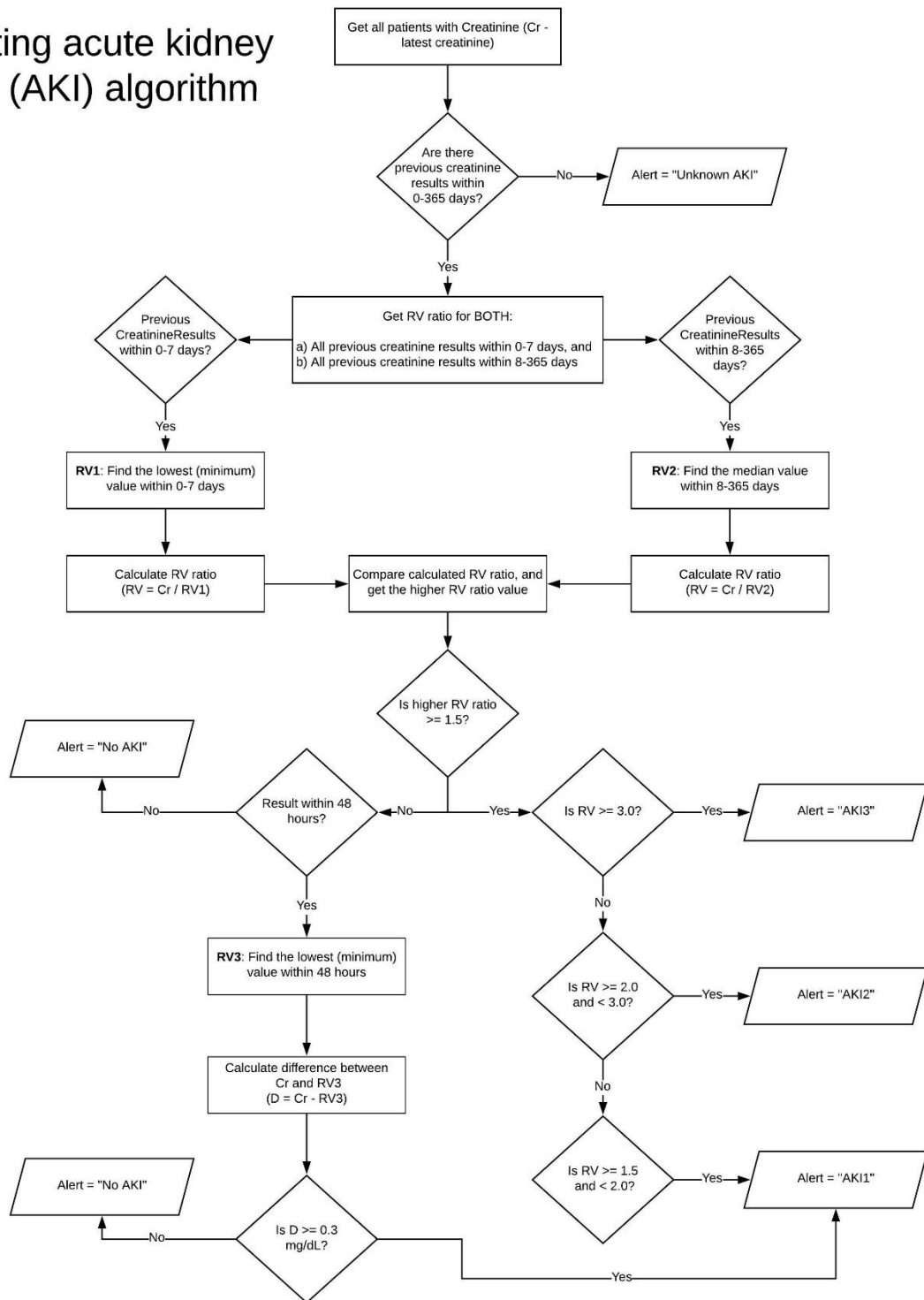
¶ Cardiovascular diseases include coronary artery disease, heart failure and peripheral vascular disease.

§ Vasoactive medications include inotropes and vasopressors.

‡ Variables were entered into the model when the alpha level of risk factor was less than 0.15. Age, gender and race were added into the model regardless of alpha level.

* Independent risk factors include increased age, Black race, diabetes mellitus, hypertension, cardiovascular disease, mechanical ventilation, and vasoactive medication.

Detecting acute kidney injury (AKI) algorithm



Supplementary Figure S1. Algorithm for detecting AKI using electronic health records.

Abbreviations: AKI, acute kidney injury; D, difference, RV, reference value.