

COVID-19 and AKI

*Possible blood markers in COVID + patients who have AKI
and the effects of steroids in AKI patients*

First 150 COVID 19 positive patients admitted to
Elmhurst Hospital Center with symptoms.

60% developed AKI

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	AKI (n=61)	Non-AKI (n=89)	p-value
Na	135.56	135.15	0.72
K	4.55	4.47	0.56
Bicarbonate	20.18	21.99	0.03
Ca	8	8.35	0.001
Phosphate	3.9	3.78	0.73
BUN	34.31	24.73	0.01
Creatinine	1.76	2.18	0.28
Albumin	3.34	3.8	0.001
Ferritin	1389.47	1803.48	0.28
Hemoglobin	13.28	13.23	0.89
WBC	10.4	9.16	0.09
Procalcitonin	1.75	0.93	0.18
CPK	449.49	272.51	0.08
CRP	215.54	157.91	0.001
D-Dimer	4545	2576	0.21
LDH	620.2	492.56	0.001
Urine WBC	16.58	12.47	0.25

Admission Labs

AKI higher:

- BUN
- CRP
- LDH

AKI lower:

- Bicarb
- Ca++
- albumin

Max Levels

over the 1st week

	AKI (61)	Non-AKI (89)	p-value
Ferritin	2328.2	1839.48	0.54
Procalcitonin	18.84	9.93	0.11
CPK	1651.23	914.63	0.34
CRP	248.73	165.6	0.001
D-Dimer	9435	5226	0.05
LDH	845.3	611.9	0.004
Pro-BNP	5342	4820	0.81
Urine WBC	20.81	12.3	0.01

Higher in AKI

- Urine WBC
- LDH
- D-dimer
- CRP

	AKI (61)	Non-AKI (89)	p-value
Na	139.31	138.61	0.54
K	4.99	4.44	0.001
Bicarbonate	21.81	23.58	0.03
Ca	7.23	8.11	0.001
Phosphate	6.26	4	0.001
BUN	67.64	28.83	0.001
Creatinine	4.67	2.24	0.001
Albumin	2.45	3.2	0.001
Ferritin	2328.2	1839.48	0.54
Hemoglobin	9.67	13.3	0.02
WBC	17.12	10.63	0.001
Procalcitonin	18.84	9.93	0.11
CPK	1651.23	914.63	0.34
CRP	248.73	165.6	0.001
D-Dimer	9435	5226	0.05
LDH	845.3	611.9	0.004
Pro-BNP	5342	4820	0.81
Urine WBC	20.81	12.3	0.01

**Max
Levels**

Outcome

	AKI (61)	Non-AKI (89)	p-value
Days to Death	9.94	8.57	0.16
Mortality (%)	88.52	21.34	0.001
Ventilated (%)	50.81	16.85	0.001

Demographics

	AKI (61)	Non-AKI (89)	p-value
Age	60.62	57.55	0.18
BMI	29.4	20.07	0.78
Male (%)	81.96	80.89	0.86
Female (%)	18.03	19.1	
Hispanic (%)	57.37	65.16	0.33
Asian (%)	29.5	17.97	0.09
Black (%)	4.91	5.61	0.85
White (%)	8.19	11.23	0.05