

**Supplemental Table 1: Dose of Beclomethasone Equivalent on Clinical Variables<sup>a</sup>**

	Regression Coefficient	p value	Odds Ratio	95% Confidence Interval
<b>Ventilator</b>	0.0008	0.15	1.00	0.99, 1.00
<b>Intensive Care Unit (ICU) Admission</b>	0.0001	0.74	1.00	0.99, 1.00
<b>Discharged on Oxygen</b>	0.0002	0.73	1.00	0.99, 1.00
<b>Initial Chest Radiograph</b>				
Clear	-0.00001	0.99	1.00	0.99, 1.00
Ground Glass Opacities (GGO)	0.0007	0.31	1.00	0.99, 1.00
Infiltrate/Opacities/Consolidation	-0.0003	0.55	1.00	0.99, 1.00
Pleural Effusion	-0.0022	0.45	1.00	0.99, 1.00
<b>Most Severe Finding on Chest Radiograph</b>				
Clear	0.0004	0.67	1.00	0.99, 1.00
Ground Glass Opacities (GGO)	0.0011	0.05	1.00	0.99, 1.00
Infiltrate/Opacities/Consolidation	-0.0005	0.35	1.00	0.99, 1.00
Pleural Effusion	-0.0009	0.53	1.00	0.99, 1.00
<b>Mortality</b>	-0.0001	0.84	1.00	0.99, 1.00

Abbreviations: ICU, intensive care unit

<sup>a</sup> Individual logistic regression analyses were performed with beclomethasone equivalent doses and each respective clinical variable. Data for each test summarized in above table.

**Supplemental Table 2A: Initial Lab Values on Intensive Care Unit (ICU) Admission<sup>a</sup>**

	Regression Coefficient	p value	Odds Ratio	95% Confidence Interval
Initial ESR (mm/hr)	-0.0002	0.95	1.00	0.99, 1.00
Initial WBC (K/uL)	0.0817	<0.001	1.09	1.05, 1.13
Initial Lymphocyte Count (K/uL)	0.0516	0.14	1.05	0.99, 1.15
Initial Neutrophil Count (K/uL)	0.0136	0.08	1.01	0.99, 1.03
Initial Procalcitonin (ng/mL)	0.0126	0.05	1.01	1.00, 1.03
Initial AST (U/L)	0.0030	0.01	1.00	1.00, 1.01
Initial ALT (U/L)	0.0032	0.02	1.00	1.00, 1.01
Initial CRP absolute (mg/dL)	0.0045	0.09	1.00	0.99, 1.01
Initial ferritin absolute (ng/mL)	0.0003	<0.001	1.00	1.00, 1.00
Initial D Dimer absolute	0.00001	0.44	1.00	0.99, 1.00
Initial Troponin absolute (ng/L)	0.0109	0.04	1.01	1.00, 1.03

**Supplemental Table 2B: Initial Lab Values on Need for Ventilator<sup>b</sup>**

	Regression Coefficient	p value	Odds Ratio	95% Confidence Interval
Initial ESR (mm/hr)	0.0026	0.50	1.00	0.99, 1.01
Initial WBC (K/uL)	0.0484	0.002	1.05	1.02, 1.09
Initial Lymphocyte Count (K/uL)	0.0442	0.14	1.05	0.99, 1.13
Initial Neutrophil Count (K/uL)	0.0043	0.59	1.00	0.99, 1.02
Initial Procalcitonin (ng/mL)	0.0126	0.04	1.01	1.00, 1.03
Initial AST (U/L)	0.0025	0.01	1.00	1.00, 1.01
Initial ALT (U/L)	0.0025	0.08	1.00	0.99, 1.01
Initial CRP absolute (mg/dL)	0.0029	0.30	1.00	0.99, 1.01
Initial ferritin absolute (ng/mL)	0.00004	<0.001	1.00	1.00, 1.00
Initial D Dimer absolute	0.00002	0.21	1.00	0.99, 1.00
Initial Troponin absolute (ng/L)	0.0133	0.02	1.01	1.00, 1.03

**Supplemental Table 2C: Initial Lab Values on Need for Oxygen on Discharge<sup>c</sup>**

	Regression Coefficient	p value	Odds Ratio	95% Confidence Interval
Initial ESR (mm/hr)	-0.0006	0.90	1.00	0.99, 1.01
Initial WBC (K/uL)	0.0009	0.94	1.00	0.97, 1.03
Initial Lymphocyte Count (K/uL)	-0.4894	0.01	0.61	0.42, 0.86
Initial Neutrophil Count (K/uL)	-0.0058	0.61	0.99	0.97, 1.01
Initial Procalcitonin (ng/mL)	0.0047	0.35	1.00	0.99, 1.02
Initial AST (U/L)	-0.0012	0.57	1.00	0.99, 1.00
Initial ALT (U/L)	-0.0010	0.67	1.00	0.99, 1.00
Initial CRP absolute (mg/dL)	0.0019	0.54	1.00	0.99, 1.01
Initial ferritin absolute (ng/mL)	0.00007	0.43	1.00	0.99, 1.00
Initial D Dimer absolute	-0.00006	0.19	1.00	0.99, 1.00
Initial Troponin absolute (ng/L)	-0.0101	0.39	0.99	0.96, 1.00

**Supplemental Table 2D: Initial Lab Values on Mortality<sup>d</sup>**

	Regression Coefficient	p value	Odds Ratio	95% Confidence Interval
Initial ESR (mm/hr)	0.0073	0.09	1.01	0.99, 1.02
Initial WBC (K/uL)	0.0395	0.007	1.04	1.01, 1.07
Initial Lymphocyte Count (K/uL)	0.0360	0.17	1.04	0.99, 1.11
Initial Neutrophil Count (K/uL)	0.0067	0.39	1.01	0.99, 1.02
Initial Procalcitonin (ng/mL)	0.0149	0.02	1.02	1.00, 1.03
Initial AST (U/L)	0.0032	0.007	1.00	1.00, 1.01
Initial ALT (U/L)	0.0012	0.42	1.00	0.99, 1.00
Initial CRP absolute (mg/dL)	0.0026	0.36	1.00	0.99, 1.01
Initial ferritin absolute (ng/mL)	0.0003	<0.001	1.00	1.00, 1.00
Initial D Dimer absolute	0.00004	0.03	1.00	1.00, 1.00
Initial Troponin absolute (ng/L)	0.0032	0.30	1.00	0.99, 1.01

Abbreviations: ICU, intensive care unit; ESR, erythrocyte sedimentation rate; WBC, white blood cell count;

AST, aspartate aminotransferase; ALT, alanine aminotransferase; CRP, c-reactive protein; mm/hr, millimeter per hour;

K/uL, thousands per cubic milliliter; ng/mL, nanograms per milliliter; U/L, units per liter; mg/dL, milligrams per deciliter;

ng/L, nanograms per liter

<sup>a,b,c,d</sup> Individual logistic regression analyses were performed for each initial lab value and respective clinical variables

**Supplemental Table 3: Laboratory Findings in Adult Asthmatics by ICS Use**

	N, if applicable <sup>a</sup>	Overall n=787	Any ICS Use n=301	No ICS Use n=486	p value
<b>Labs, Mean (SD)</b>					
Initial ESR (mm/hr)	322	62.7 (33.6)	65.4 (31.2)	60.9 (35.1)	0.24
Peak ESR (mm/hr)	310	69.2 (39.2)	73.1 (37.8)	66.7 (40.0)	0.16
Initial WBC (K/uL)	785	8.44 (7.04)	8.30 (4.12)	8.52 (8.35)	0.63
Peak WBC (K/uL)	778	13.5 (11.4)	13.2 (7.99)	13.7 (13.1)	0.50
Nadir WBC (K/uL)	777	6.24 (4.33)	6.15 (3.13)	6.29 (4.94)	0.64
Initial Lymphocyte Count (K/uL)	782	1.30 (3.23)	1.14 (1.67)	1.40 (3.89)	0.20
Lowest Lymphocyte Count (K/uL)	768	0.963 (1.79)	0.897 (1.70)	1.00(1.85)	0.43
Initial Neutrophil Count (K/uL)	782	7.27 (10.3)	7.24 (7.77)	7.29 (11.5)	0.94
Peak Neutrophil Count (K/uL)	767	10.8 (10.4)	10.7 (9.35)	10.8 (10.9)	0.90
Initial Procalcitonin (ng/mL)	640	2.61 (17.6)	4.06 (24.7)	1.65 (10.4)	0.14
Initial AST (U/L)	782	58.3 (88.0)	59.2 (97.7)	57.7 (81.5)	0.83
Peak AST (U/L)	773	245 (1360)	145 (933)	306 (1560)	0.07
Initial ALT (U/L)	782	47.1 (55.5)	45.4 (56.1)	48.2 (55.2)	0.50
Peak ALT (U/L)	773	175 (777)	168 (619)	179 (861)	0.85
Tb cell CD3 absolute (cells/uL)	77	551 (364)	542 (422)	556 (333)	0.88
Tb cell CD3 percent	78	74.9 (114)	98.0 (194)	62.7 (14.6)	0.35
Tb cell CD4 absolute (cells/uL)	76	348 (233)	364 (261)	340 (219)	0.68
Tb cell CD4 percent	77	38.3 (11.8)	37.5 (12.1)	38.7 (11.7)	0.66
Tb cell CD8 absolute (cells/uL)	76	203 (165)	209 (188)	199 (153)	0.81
Tb cell CD8 percent	77	24.6 (18.0)	27.2 (27.0)	23.3 (11.0)	0.48
Tb cell CD19 absolute (cells/uL)	41	164 (123)	167 (105)	163 (134)	0.91
Tb cell CD1656 absolute (cells/uL)	41	487 (2200)	190 (174)	641 (2710)	0.40
Tb cell CD1656 percent	41	16.4 (9.69)	18.5 (10.6)	15.3 (9.21)	0.32
Initial CRP absolute (mg/dL)	699	16.3 (29.7)	20.7 (42.0)	13.3 (16.8)	0.006
Peak CRP absolute (mg/dL)	691	22.5 (40.8)	29.4 (59.0)	18.0 (20.2)	0.002
Initial ferritin absolute (ng/mL)	664	1020 (1890)	935 (1350)	1080 (2170)	0.30
Peak ferritin absolute (ng/mL)	653	1730 (4240)	1650 (3740)	1780 (4540)	0.70
Initial D Dimer absolute (ng/mL)	593	1470 (4800)	1410 (4390)	1500 (5050)	0.82
Peak D Dimer absolute (ng/mL)	584	4010 (9140)	4590 (9930)	3620 (8580)	0.22
Initial Troponin absolute (ng/L)	419	23.5 (359)	5.15 (18.3)	34.5 (454)	0.30
Peak Troponin absolute (ng/L)	381	51.4 (586)	8.87 (27.9)	78.7 (750)	0.16
Cytokine IL 1 absolute (pg/mL)	37	14.1 (38.6)	19.7 (54.8)	10.6 (25.0)	0.57
Cytokine IL 6 absolute (pg/mL)	61	132 (427)	117 (330)	140 (477)	0.85
Cytokine IL 10 absolute (pg/mL)	41	17.3 (20.5)	22.2 (29.0)	13.9 (10.7)	0.27
Tb cell CD19 percent (cells/uL)	42	20.6 (16.7)	18.1 (9.54)	22.0 (19.7)	0.40

Abbreviations: ICS, inhaled corticosteroid; SD, standard deviation; ESR, erythrocyte sedimentation rate; WBC, white blood cell count; AST, aspartate aminotransferase; ALT, alanine aminotransferase; Tb Cell, T and B cell subsets; CD, cluster of differentiation; CRP, c-reactive protein; IL, interleukin; mm/hr, millimeter per hour; K/uL, thousands per cubic milliliter; ng/mL, nanograms per milliliter; U/L, units per liter; cells/uL, cells per microliter; mg/dL, milligrams per deciliter; ng/L, nanograms per liter; pg/mL, picograms per milliliter

<sup>a</sup> Number of patients with respective lab values included in analyses