

**Supplemental Table 1.** Comparison of participants by respiratory support

	<b>NIS ≤ 3 Days</b>	<b>NIS &gt; 3 Days</b>	<b>IMV</b>	<b>P-Adj</b>
<b>n</b>	12	8	8	
<b>Median Age (mon) [IQR]</b>	1.9 [1.4-2.3]	4.0 [2.0-6.0]	3.0 [1.8-5.0]	0.29
<b>Gest Age &lt;35 wks at Birth (%)</b>	0 (0.0)	0 (0.0)	1 (12.5)	0.63
<b>Sex</b>				
Male (%)	8 (66.7)	5 (62.5)	1 (12.5)	0.18
Female (%)	4 (33.3)	3 (37.5)	7 (87.5)	
<b>Race</b>				
White (%)	5 (41.7)	6 (75.0)	4 (50.0)	0.62
African American (%)	3 (25.0)	0 (0.0)	1 (12.5)	
Asian (%)	0 (0.0)	1 (12.5)	1 (12.5)	
Other (%)	4 (33.3)	1 (12.5)	2 (25.0)	
<b>Ethnicity</b>				
Non-Hispanic (%)	8 (66.7)	8 (66.7)	6 (75.0)	0.85
Hispanic (%)	4 (33.3)	4 (33.3)	2 (25.0)	
<b>Sample Collection</b>				
Day of Illness (d) [IQR]	4.5 [3.0-6.0]	4.0 [3.0-4.0]	5.0 [3.8-5.3]	0.29
<b>Respiratory Support</b>				
Flow Rate (L/min/kg) [IQR]	1.6 [1.4-1.9]	2.1 [1.9-2.1]	-	0.29
FiO <sub>2</sub> (%) [IQR]	27.5 [24.0-31.3]	30.0 [28.8-36.3]	-	0.35
<b>Outcomes</b>				
Median ICU LOS (d) [IQR]	3.0 [2.7-3.5]	5.2 [4.6-5.9]	9.8 [7.8-12.0]	0.0002
Median Hospital LOS (d) [IQR]	3.8 [3.6-4.5]	6.0 [5.3-6.9]	13.2 [9.5-15.9]	0.0003
Median Respiratory Support Duration (d) [IQR]	2.67 [1.9-3.0]	4.5 [4.0-5.3]	8.5 [7.3-11.4]	0.0001

*Definition of abbreviations:* NIS = non-invasive support, IMV =invasive mechanical ventilation, Gest = gestational, wks = weeks, d = days, mon = months, IQR = interquartile range, L = liters, min = minute, kg = kilogram, FiO<sub>2</sub> = fraction of inspired oxygen ICU = intensive care unit, LOS = length of stay