

Supplementary Material. Table 1. Bivariate analysis by use of IMV in patients from 60 to 70 years old

	Overall patients (n = 618)		Mechanical ventilation (n = 358) (57.9%)	Other oxygen support strategy (n = 260) (42.1%)	p value
	Patients	missing	Patients	Patients	
Demographic					
Sex n (%)	Female 211(34.2%) Male 407(65.8%)	0	Female 135(37.7%) Male 223(62.3%)	Female 76(29.3%) Male 184(70.7%)	<0.001 ⁺
Age (years) median [IQR]	65[62-68]	0	65[62-68]	66[62-68]	0.47*
Body mass index median [IQR]	26.79[24.25-29.7]	0	27.49[24.98-31.14]	25.98[23.52-28.72]	<0.001*
Comorbidities					
Hypertension n (%)	159(25.7%)	0	94(26%)	65(25%)	0.79 ⁺
Congestive heart Failure n (%)	27(4.3%)	0	17(4.7%)	10(4.7%)	0.73 ⁺
Chronic pulmonary disease n (%)	24(3.8%)	0	16(4.4%)	8(4.4%)	0.5 ⁺
Diabetes n (%)	11(1.8%)	0	7(1.9%)	4(1.5%)	0.93 ⁺
Charlson index median [IQR]	2[2-3]	0	2[2-3]	2[2-3]	0.67
Laboratory values median (IQR)					
White blood count (cells x 10 ⁶ /L)	9070[6885-12095]	3	9330[7030-12920]	8750[6703-11082]	0.009*
Neutrophil-lymphocyte ratio	9.05[5.75-13.82]	4	9.6[6.2-16.04]	7.98[5.29-11.88]	0.007*
Hematocrit (%)	44.1[40.2-47.6]	3	44.3[40.3-47.9]	43.8[40.1-47.2]	0.22*
Hemoglobin (g/dl)	14.8[13.5-16]	10	14.8[13.6-16.1]	14.7[13.4-15.9]	0.5*
LDH (U/L)	452.5[352.25-568]	16	492[381.7-621]	409[325-498]	<0.001*
D dimer (ng/ml)	1085[677-2024.5]	27	1073[670.25-2039]	1108 [712-1928]	0.99*
Procalcitonin (ng/ml)	0.42[0.17-1.24]	286	0.56[0.25-1.56]	0.17[0.10-0.44]	<0.001*
Ferritin (ng/ml)	1346[863.5-2409]	467	1343.5[835.3-2379]	1467 [1056-2424]	0.55*
Oxygenation index median [IQR]					
P/F ratio at admission	170.0[110.5-222.6]	0	140.34[95.20-292.66]	204.55[155.21-239.73]	< 0.01*
P/F ratio at the diagnosis of ARDS	168.70[110.2-218.2]	0	137.81[94.21-190.26]	202.30[155.21-238.01]	< 0.01*
Lowest P/F	70.1[53.4-118.4]	0	58.97[47.16-71.76]	125.34[81.23-187.65]	< 0.01*
C-ARDS					
Mild n (%)	207(33.5%)	0	76(21.1%)	131(50.3%)	< 0.01 ⁺
Moderate n (%)	290(46.9%)	0	184(51.3%)	106(40.7%)	< 0.01 ⁺
Severe n (%)	121(19.5)	0	98(27.3%)	23(8.8%)	< 0.01 ⁺
Other Airway management					
Tracheostomy n (%)	35(5.6%)	0	35(9.7%)	0	-
Treatment					
Dexamethasone n (%)	452(73.1%)	0	256(71.5%)	196(75.3%)	0.326 ⁺
Hydrocortisone n (%)	113(18.2%)	0	105(29.3%)	8(3%)	<0.001 ⁺
Methylprednisolone n (%)	56(9%)	0	47(13.1%)	9(3.4%)	<0.001 ⁺
Any steroid n (%)	491(79.4%)	0	292(81.5%)	199(76.5%)	0.153 ⁺
Respiratory mechanics Day 0 median [IQR]					
Tidal volume (mL)	410[370-450]	275	410[370-450]	NA	-
Tidal volume adjusted by ideal weight (mL/kg)	7[6.5-7.5]	275	7[6.5-7.5]	NA	-
Respiratory rate	18[16-18]	276	18[16-18]	NA	-
Plateau pressure (cmH ₂ O)	24[22-26]	421	24[22-26]	NA	-
Peak pressure (cmH ₂ O)	28[25-32]	350	28[25-32]	NA	-
PEEP (cmH ₂ O)	12[10-12]	274	12[10-12]	NA	-
Driving pressure (cmH ₂ O)	12[10-14]	423	12[10-14]	NA	-
Mechanic power	15.4[12.7-19.1]	435	15.4[12.7-19.1]	NA	-
Prone (hours/day)	0[0-6]	269	0[0-6]	NA	-
Respiratory mechanics Day 2 median [IQR]					
Tidal volume (mL)	430[400-470]	297	430[400-470]	NA	-
Tidal volume adjusted by ideal weight (mL/kg)	7.3[6.9-7.9]	297	7.3[6.9-7.9]	NA	-
Respiratory rate	20[18-20]	299	20[18-20]	NA	-
Plateau pressure (cmH ₂ O)	24[22-26]	376	24[22-26]	NA	-

Peak pressure (cmH ₂ O)	30[26-34]	316	30[26-34]	NA	-
PEEP (cmH ₂ O)	12[10-12]	297	12[10-12]	NA	-
Driving pressure (cmH ₂ O)	12[10-14]	376	12[10-14]	NA	-
Mechanic power	19.1[15.5-22.2]	386	19.1[15.5-22.2]	NA	-
Prone (hours/day)	10[0-18]	297	10[0-18]	NA	-
Outcomes					
Mortality	271(43.8%)	0	246(68.7%)	25(9.6%)	< 0.01⁺
Duration of mechanical ventilation (days) median [IQR]	10[6-15]	260	6[10-15]	0	-
[†] p values were obtained using Chi-square test [*] p values were obtained using the Mann–Whitney test Bold values indicate statistically significant p values					

IQR: interquartile range; LDH: lactate dehydrogenase; P/F: ratio of partial pressure of oxygen in arterial blood to the fraction of inspiratory oxygen concentration; ARDS: acute respiratory distress syndrome; C-ARDS: COVID-19-related acute respiratory distress syndrome; PEEP: positive end-expiratory pressure; ICU: intensive care unit; mL: millilitres; kg: kilograms; cmH₂O: water centimeters; U/L: units per liter; ng/ml: nanograms per millilitre

Supplementary material. Table 2. Bivariate analysis by use of IMV in patients from 71 to 80 years old

	Overall patients (n = 557)		Mechanical ventilation (n = 293) (52.6%)	Other oxygen support strategy (n = 264) (47.4%)	p value
	Patients	missing	Patients	Patients	
Demographic					
Sex n (%)	Female 183(32.8%) Male 374(67.1%)	0	Female 110(37.5%) Male 183(62.4%)	Female 73(27.6%) Male 191(72.3%)	0.016*
Age (years) median [IQR]	75[73-78]	0	75[73-77]	75[73-78]	0.12*
Body mass index median [IQR]	26.56[24.03-29.38]	0	27.10[24.65-30.29]	25.71[23.30-28.38]	<0.001*
Comorbidities					
Hypertension n (%)	184(33.03%)	0	98(33.4%)	86(32.5%)	0.89+
Congestive heart Failure n (%)	29(5.2%)	0	15(5.1%)	14(5.3%)	1+
Chronic pulmonary disease n (%)	52(9.3%)	0	27(9.2%)	25(9.4%)	1+
Diabetes n (%)	5(0.9%)	0	1(0.3%)	4(1.5%)	0.3+
Charlson index median [IQR]	3[3-4]	1	3[3-4]	3[3-4]	0.47
Laboratory values median [IQR]					
White blood count (cells x 10 ⁶ /L)	8475[6227-11842]	1	8700[6290-12330]	8240[6135-11305]	0.0007*
Neutrophil-lymphocyte ratio	8.57[4.82-14.65]	1	9.21[5.38-16.58]	8.13[4.65-12.36]	0.001*
Hematocrit (%)	44.1[39.8-47.6]	1	44.2[40.5-47.3]	44[38.9-47.9]	0.22*
Hemoglobin (g/dl)	14.7[13.4-15.92]	1	14.8[13.5-15.8]	14.7[13.1-16.1]	0.5*
LDH (U/L)	421[333.25-530]	27	447.5[351.75-598]	389[317.25-491.5]	<0.001*
D dimer (ng/ml)	1204.5[758.5-2052]	31	1250[722.25-2000.25]	1123 [772.75-2127]	0.62*
Procalcitonin (ng/ml)	0.43[0.17-1.53]	265	0.52[0.25-1.72]	0.22[0.13-0.69]	<0.001*
Ferritin (ng/ml)	978.5[604.1-1782.25]	457	916[609-2334]	1002[609.7-1667.5]	0.83*
Oxygenation index median [IQR]					
P/F ratio at admission	168.05[108.98-232.2]	0	140[93.6-199.28]	208.06[144.31-253.19]	< 0.01*
P/F ratio at the diagnosis of ARDS	165.4[108.57-227.61]	0	137.77[93.17-195.81]	205.37[139.19-250.18]	< 0.01*
Lowest P/F	72.08[54.4-121.5]	0	58.04[49.2-72.30]	114.72[74.70.19-201.35]	< 0.01*
C-ARDS					
Mild n (%)	206(36.9%)	0	69(23.5%)	137(51.8%)	< 0.01*
Moderate n (%)	242(43.4%)	0	139(47.4%)	103(39%)	< 0.01*
Severe n (%)	109(19.5)	0	85(29%)	24(9%)	< 0.01*
Other Airway management					
Tracheostomy n (%)	27(4.8%)	0	27(9.2%)	0	-
Treatment					
Dexamethasone n (%)	399(71.6%)	0	206(70.3%)	193(73.1%)	0.523+
Hydrocortisone n (%)	86(15.4%)	0	71(24.2%)	15(5.6%)	<0.01*
Methylprednisolone n (%)	40(7.1%)	0	29(9.8%)	11(4.1%)	0.014*
Any steroid n (%)	441(79.1%)	0	239(81.5%)	202(76.5%)	0.173+
Respiratory mechanics Day 0 median [IQR]					
Tidal volume (mL)	400[370-450]	274	400[370-450]	NA	-
Tidal volume adjusted by ideal weight (mL/kg)	7[6.5-7.5]	274	7[6.5-7.5]	NA	-
Respiratory rate	18[16-19]	274	18[16-19]	NA	-
Plateau pressure (cmH ₂ O)	23[21-25]	388	23[21-25]	NA	-
Peak pressure (cmH ₂ O)	28[25-32]	341	28[25-32]	NA	-
PEEP (cmH ₂ O)	12[10-12]	274	12[10-12]	NA	-
Driving pressure (cmH ₂ O)	12[10-14]	388	12[10-14]	NA	-
Mechanic power	15.9[13-18.6]	404	15.9[13-18.6]	NA	-
Prone (hours/day)	0[0-1]	272	0[0-1]	NA	-
Respiratory mechanics Day 2 median [IQR]					
Tidal volume (mL)	430[380-460]	316	430[380-460]	NA	-
Tidal volume adjusted by ideal weight (mL/kg)	7.2[6.8-8]	316	7.2[6.8-8]	NA	-
Respiratory rate	18[18-20]	315	18[18-20]	NA	-

Plateau pressure (cmH ₂ O)	23[21-26]	388	23[21-26]	NA	-
Peak pressure (cmH ₂ O)	28.5[26-31]	331	28.5[26-31]	NA	-
PEEP (cmH ₂ O)	12[10-12]	314	12[10-12]	NA	-
Driving pressure (cmH ₂ O)	12[11-14]	388	12[11-14]	NA	-
Mechanic power	17.8[14.2-20.8]	391	17.8[14.2-20.8]	NA	-
Prone (hours/day)	8[0-18]	314	8[0-18]	NA	-
Outcomes					
Mortality	288(51.7%)	0	229(78%)	59(22.3%)	< 0.01⁺
Duration of mechanical ventilation (days) median [IQR]	10[6-15]	260	9[4-14]	0	-
⁺ p values were obtained using Chi-square test [*] p values were obtained using the Mann–Whitney test Bold values indicate statistically significant p values					

IQR: interquartile range; LDH: lactate dehydrogenase; P/F: ratio of partial pressure of oxygen in arterial blood to the fraction of inspiratory oxygen concentration; ARDS: acute respiratory distress syndrome; C-ARDS: COVID-19-related acute respiratory distress syndrome; PEEP: positive end-expiratory pressure; ICU: intensive care unit; mL: millilitres; kg: kilograms; cmH₂O: water centimeters; U/L: units per liter; ng/ml: nanograms per millilitre