

**Table S1.** Additional data on general and clinical patients' characteristics between the second and the third wave.

Parameter		Total (N=229)	Second wave (N=75)	Third wave (N=154)	p-value
BMI, ranges (N=154)	18-24.9 kg/m <sup>2</sup>	19 (12.34%)	5 (10.2%)	14 (13.33%)	0.774*
	25-29.9 kg/m <sup>2</sup>	55 (35.71%)	16 (32.65%)	39 (37.14%)	0.718*
	30-34.9 kg/m <sup>2</sup>	46 (29.87%)	16 (32.65%)	30 (28.57%)	0.744*
	35-39.9 kg/m <sup>2</sup>	23 (14.94%)	6 (12.24%)	17 (16.19%)	0.691*
	≥ 40 kg/m <sup>2</sup>	11 (7.14%)	6 (12.24%)	5 (4.76%)	0.105***
Smoking (N=164)	Current	13 (7.93%)	3 (5.26%)	10 (9.35%)	0.545***
	Current or former	20 (12.2%)	6 (10.53%)	14 (13.08%)	0.821*
Blood type (N=62)	A Rh+	18 (29.03%)	11 (30.56%)	7 (26.92%)	0.978*
	A Rh-	3 (4.84%)	2 (5.56%)	1 (3.85%)	1***
	B Rh+	12 (19.35%)	8 (22.22%)	4 (15.38%)	0.729*
	B Rh-	4 (6.45%)	3 (8.33%)	1 (3.85%)	0.633***
	AB Rh+	2 (3.23%)	1 (2.78%)	1 (3.85%)	1***
	AB Rh-	2 (3.23%)	1 (2.78%)	1 (3.85%)	1***
	O Rh+	20 (32.26%)	9 (25%)	11 (42.31%)	0.245*
	O Rh-	1 (1.61%)	1 (2.78%)	0 (0%)	1***
Treatment	Steroids	222 (96.9%)	74 (98.7%)	148 (96.1%)	0.431***
	Remdesivir	59 (25.8%)	19 (25.3%)	40 (26%)	0.955*
	Tocilizumab	9 (3.9%)	3 (4%)	6 (3.9%)	1***
	Antibiotics	166 (72.5%)	56 (74.7%)	110 (71.4%)	0.721*
	Convalescent plasma	20 (8.7%)	7 (9.3%)	13 (8.4%)	0.980*
	LMWH	227 (99.1%)	75 (100%)	152 (98.7%)	0.815*
SpO2 at admission,% (N=190)		90 (87-92)	89 (85.5-92)	90 (87-92)	0.641**
Time from the onset of symptoms to hospital admission, days (N=229)		8 (7-11)	8 (6-10)	9 (7-11)	0.074**
Duration of hospitalization (excluding deceased), days (N=212)		10.5 (8-14)	11 (9-16)	10 (8-13.25)	0.036**
Time from hospital admission to death (N=16)		15 (8.75-27.25)	20 (14.5-24.75)	10 (7.25-30.75)	0.329**
Conventional oxygen therapy (N=229)		222 (96.94%)	73 (97.33%)	149 (96.75%)	1***
Maximum flow – HFNO, l/min (N=55)		60 (57.5-60)	60 (55-61.25)	60 (60-60)	0.814**
Maximum FiO2 – HFNO, % (N=55)		90 (83.5-95)	94.5 (87.5-95.25)	90 (83.5-95)	0.277**
Extubation (N=22)		6 (27.27%)	3 (27.27%)	3 (27.27%)	1***
Duration of oxygen therapy (conventional/HFNO/invasive ventilation), days (N=206)			8 (5-12)	6 (4-10)	0.814**
ECMO (N=229)		8 (3.49%)	4 (5.33%)	4 (2.6%)	0.444***
Length of ICU stay (excluding deceased), days (N=16)		9 (6-18.25)	9 (6-25.5)	9 (6-16)	1**
Time from the onset of symptoms to ICU admission, days (N=31)		10 (8.5-13)	10 (8-13)	10 (9-13)	0.524**
Vasopressors (N=229)		21 (9.17%)	11 (14.67%)	10 (6.49%)	0.077*
CRRT (N=229)		5 (2.18%)	3 (4%)	2 (1.3%)	0.334**

w/o – without outliers; \* - Chi-squared with Yates correction; \*\* - Mann-Whitney U test; \*\*\* - Fisher's exact test. Continuous variables are presented as median (IQR), categorical variables are presented as N (%).

LMWH – Low molecular-weight heparin, CRRT - continuous renal replacement therapy.

**Table S2.** Additional data on comparison of patients' laboratory parameters (as continuous variables) between the second and the third wave.

Parameter	Total (N=229)	Second wave (N=75)	Third wave (N=154)	p-value*
RBC count - at admission, $\times 10^6/\mu\text{L}$ (N=227)	4.79 (4.54-5.05)	4.78 (4.46-5.06) (w/o median 4.8)	4.79 (4.59-5.05)	0.761 (w/o 0.835)
RBC count - 7. DOH, $\times 10^6/\mu\text{L}$ (N=187)	4.72 (4.45-5.04)	4.62 (4.37-4.99) (w/o median 4.67)	4.75 (4.5-5.09)	0.246 (w/o 0.321)
Hemoglobin - at admission, g/dL (N=227)	14.3 (13.45-15.1)	14.3 (13.35-15.25)	14.35 (13.6-15.03)	0.818 (w/o 0.813)
Hemoglobin - 7. DOH, g/dL (N=187)	14 (13-15)	13.95 (12.8-14.8)	14.1 (13.2-15.2)	0.239
Hematocrit - at admission, % (N=227)	41.6 (39.35-44.05)	41.2 (39.2-44)	41.7 (39.68-44.03)	0.375 (w/o 0.417)
Hematocrit - 7. DOH, % (N=187)	41.7 (38.5-44.6)	41.25 (37.3-44.25)	41.9 (39.4-44.6)	0.094 (w/o 0.128)
Ferritin - at admission, ng/mL (N=61)	1160 (487-1562)	1160 (725.5-1386)	1159 (470.5-1567.25)	0.802 (w/o 0.947)
Ferritin - 7. DOH, ng/mL (N=31)	951 (438-1394)	920 (585.75-1484.5)	951 (438-1323.5)	0.740
IL-6 - at admission, ng/mL (N=116)	20.75 (7.2-56.6)	18.8 (8.22-45)	20.8 (5.56-65.2)	0.622
IL-6 - 7. DOH, ng/mL (N=53)	9.1 (4.23-21.8)	9.19 (6.11-22.2)	8.45 (2.34-21.05)	0.426
AT III - at admission, % (N=17)	95 (85-101)	93 (76.5-97)	102.5 (95-128)	0.159
AT III - 7. DOH, % (N=10)	93 (90.25-108)	91 (82-94.75)	109 (93.75-123)	0.238
Fibrinogen - at admission, mg/dL (N=62)	598 (467-728.25)	646 (510-773)	585 (466-683)	0.278 (w/o 0.191)
Fibrinogen - 7. DOH, mg/dL (N=39)	486 (386-578)	532.5 (385.5-619.75)	477 (410-557)	0.548
LDH - at admission, U/L (N=172)	410 (313-554)	380 (292.25-530.75)	419.5 (324.75-575)	0.178
LDH - 7. DOH, U/L (N=46)	389.5 (256.75-447.25)	397 (353-529.75)	368.5 (243.5-434.5)	0.181
hs-TnI - at admission, pg/mL (N=153)	3.4 (3.2-7.9)	3.9 (2.55-7.35)	3.2 (3.2-7.83)	0.667
hs-TnI - 7. DOH, pg/mL (N=40)	3.2 (2.28-22.1)	2.45 (1.08-23.1)	3.2 (3.2-13.25)	0.244
CK - at admission, U/L (N=142)	250.5 (114-457)	207.5 (88.5-465.75)	256.5 (134-452.25)	0.268
CK - 7. DOH, U/L (N=38)	69.5 (35.25-197)	83.5 (25.75-225)	67.5 (36.75-129.25)	0.745
CK-MB - at admission, U/L (N=124)	19 (15-25)	19 (15-22)	18 (15-27)	0.998
CK-MB - 7. DOH, U/L (N=27)	18 (13.5-30.5)	20 (13.5-30)	15 (14-36)	0.865
NT-proBNP - at admission, pg/mL (N=142)	101.5 (43-192.75)	116.5 (49-234.75)	100.6 (40.75-178.25)	0.524
NT-proBNP - 7. DOH, pg/mL (N=42)	147 (57.75-264.25)	208.5 (66.5-272)	119 (65.25-218.25)	0.247
Myoglobin - at admission, ng/mL (N=15)	118 (54.5-1459)	60 (48-218)	1459 (430.75-2579.5)	0.078
Myoglobin - 7. DOH, ng/mL (N=11)	150 (37-277)	125 (28-248)	811 (578-1044)	0.034
Creatinine - at admission, mg/dL (N=222)	0.9 (0.78-1.04)	0.92 (0.79-1.06)	0.89 (0.77-1.03)	0.301 (w/o 0.170)
Creatinine - 7. DOH, mg/dL (N=169)	0.82 (0.71-0.91)	0.83 (0.73-0.91)	0.81 (0.71-0.92)	0.634 (w/o 0.840)
EGFR - at admission, mL/min (N=215)	90 (77-103)	88 (77-102)	91 (77.25-103) (w/o median 90.16)	0.489 (w/o 0.594)
EGFR - 7. DOH, mL/min (N=169)	101 (89-118)	100.5 (88.5-122.5) (w/o median 101.5)	102 (89-115)	0.815 (w/o 0.854)
Urea - at admission, mg/dL (N=209)	28 (22-36)	29.5 (23.75-37)	26 (21.35)	0.174 (w/o 0.107)
Urea - 7. DOH, mg/dL (N=124)	33 (28-40)	35.5 (28.5-52.5) (w/o median 35.29)	32 (27.25-39.75)	0.170 (w/o 0.164)
ALT - at admission, U/L (N=226)	47 (32.25-68.75)	45 (34-62.5)	48 (32-72.5)	0.506 (w/o 0.574)
ALT - 7. DOH, U/L (N=150)	95 (55-68.75)	118 (55-174)	90 (55-140)	0.224
AST - at admission, U/L (N=219)	48 (35-71.4)	45 (33.5-73)	49.5 (36.78-72.25)	0.142 (w/o 0.155)
AST - 7. DOH, U/L (N=148)	45 (30-69.25)	54 (36-71)	41 (29-64.5)	0.181
GGT - at admission, U/L (N=58)	68 (43-152)	92 (46-120.75)	62 (40-152)	0.972
GGT - 7. DOH, U/L (N=41)	112 (58-192)	160 (57-208)	93.5 (58-160)	0.408
Total bilirubin - at admission, mg/dL (N=165)	0.43 (0.32-0.57)	0.41 (0.32-0.54)	0.44 (0.33-0.58)	0.440
Total bilirubin - 7. DOH, mg/dL (N=63)	0.42 (0.3-0.6)	0.41 (0.28-0.59)	0.43 (0.3-0.6)	0.605
Total calcium - at admission, mmol/L (N=42)	2.14 (2.04-2.23)	2.13 (2.07-2.19)	2.14 (2.04-2.23)	0.959
Total calcium - 7. DOH, mmol/L (N=34)	2.23 (2.1-2.28)	2.18 (2.08-2.28)	2.23 (2.1-2.28)	0.743
Vitamin D3 - at admission, ng/mL (N=81)	26.9 (19.5-33.8)	26.8 (19.75-31.53)	27.7 (19.5-39.2)	0.797 (w/o 0.894)
Vitamin D3 - 7. DOH, ng/mL (N=6)	22.45 (16.7-35.4)	-	22.45 (16.7-35.4)	-

\*- Mann-Whitney U test; w/o – without outliers. All variables are presented as median (IQR).

**Table S3.** Comparison of patients' laboratory parameters (as categorical variables) between the second and the third wave.

Parameter		Total (N=229)	Second wave (N=75)	Third wave (N=154)	p-value
WBC ranges - at admission (N=227)	< 4.5 ×10 <sup>3</sup> /μL	54 (23.79%)	12 (16%)	42 (27.63%)	0.077*
	4.5-10 ×10 <sup>3</sup> /μL	139 (61.23%)	42 (56%)	97 (63.82%)	0.321*
	>10 ×10 <sup>3</sup> /μL	34 (14.98%)	21 (28%)	13 (8.55%)	<0.001*
WBC ranges – 7. DOH (N=187)	< 4.5 ×10 <sup>3</sup> /μL	7 (3.74%)	4 (6.45%)	3 (2.4%)	0.223**
	4.5-10 ×10 <sup>3</sup> /μL	122 (65.24%)	37 (59.68%)	85 (68%)	0.336*
	>10 ×10 <sup>3</sup> /μL	58 (31.02%)	21 (33.87%)	37 (29.6%)	0.670*
Neutrophil count ranges - at admission (N=226)	< 1.9 ×10 <sup>3</sup> /μL	13 (5.75%)	2 (2.67%)	11 (7.28%)	0.229**
	1.9-7 ×10 <sup>3</sup> /μL	160 (70.8%)	45 (60%)	115 (76.16%)	0.018*
	>7 ×10 <sup>3</sup> /μL	53 (23.45%)	28 (37.33%)	25 (16.56%)	0.001*
Neutrophil count ranges - 7. DOH (N=187)	< 1.9 ×10 <sup>3</sup> /μL	5 (2.69%)	3 (4.92%)	2 (1.6%)	0.333**
	1.9-7 ×10 <sup>3</sup> /μL	127 (68.28%)	40 (65.57%)	87 (69.6%)	0.600*
	>7 ×10 <sup>3</sup> /μL	54 (29.03%)	18 (29.51%)	36 (28.8%)	1*
Neutrophil percentage ranges - at admission (N=226)	< 40%	1 (0.44%)	0 (0%)	1 (0.66%)	1**
	40-68%	62 (27.43%)	16 (21.33%)	46 (30.46%)	0.197*
	>68%	163 (72.12%)	59 (78.67%)	104 (68.87%)	0.165*
Neutrophil percentage ranges - 7. DOH (N=186)	< 40%	7 (3.76%)	2 (3.28%)	5 (4%)	1**
	40-68%	113 (60.75%)	39 (63.93%)	74 (59.2%)	0.645*
	>68%	66 (35.48%)	20 (32.79%)	46 (36.8%)	0.709*
Lymphocyte count ranges - at admission (N=226)	< 0.9 ×10 <sup>3</sup> /μL	103 (45.58%)	34 (45.33%)	69 (45.7%)	1*
	0.9-5 ×10 <sup>3</sup> /μL	123 (54.42%)	41 (54.67%)	82 (54.3%)	1*
	>5 ×10 <sup>3</sup> /μL	0	0	0	-
Lymphocyte count ranges - 7. DOH, N(%); (N=186)	< 0.9 ×10 <sup>3</sup> /μL	19 (10.22%)	8 (13.11%)	11 (8.8%)	0.513*
	0.9-5 ×10 <sup>3</sup> /μL	165 (88.71%)	53 (86.89%)	112 (89.6%)	0.762*
	>5 ×10 <sup>3</sup> /μL	2 (1.08%)	0 (0%)	2 (1.6%)	1**
Lymphocyte percentage ranges - at admission (N=226)	< 19%	138 (61.06%)	51 (68%)	87 (57.62%)	0.173*
	19-48%	87 (38.5%)	23 (30.67%)	64 (42.38%)	0.119*
	>48%	1 (0.44%)	1 (1.33%)	0 (0%)	0.332**
Lymphocyte percentage ranges- 7. DOH (N=186)	< 19%	64 (34.41%)	22 (36.07%)	42 (33.6%)	0.867*
	19-48%	118 (63.44%)	37 (60.66%)	81 (64.8%)	0.697*
	>48%	4 (2.15%)	2 (3.28%)	2 (1.6%)	0.599**
PLT ranges- at admission (N=227)	< 150 ×10 <sup>3</sup> /μL	41 (18.06%)	11 (14.67%)	30 (19.74%)	0.453*
	150-400 ×10 <sup>3</sup> /μL	171 (75.33%)	58 (77.33%)	113 (74.34%)	0.743*
	>400 ×10 <sup>3</sup> /μL	15 (6.61%)	6 (8%)	9 (5.92%)	0.757*
PLT ranges – 7. DOH (N=187)	< 150 ×10 <sup>3</sup> /μL	2 (1.07%)	1 (1.61%)	1 (0.8%)	1**
	150-400 ×10 <sup>3</sup> /μL	93 (49.73%)	31 (50%)	62 (49.6%)	1*
	>400 ×10 <sup>3</sup> /μL	92 (49.2%)	30 (48.39%)	62 (49.6%)	0.999*
NLR ≥2 - at admission (N=226)		206 (91.15%)	69 (92%)	137 (90.73%)	0.946*
NLR ≥2- 7. DOH (N=186)		118 (63.44%)	43 (70.49%)	75 (60%)	0.218*
CRP ≥100 mg/L - at admission (N=222)		82 (36.94%)	33 (44%)	49 (33.33%)	0.158*
CRP ≥100 mg/L - 7. DOH (N=187)		9 (4.97%)	6 (10.17%)	3 (2.46%)	0.060**
PCT > 0.5 ng/mL – at admission; (N=205)		22 (10.73%)	10 (14.08%)	12 (8.96%)	0.372*
PCT > 0.5 ng/mL – 7. DOH; (N=102)		10 (9.8%)	5 (14.71%)	5 (7.35%)	0.295**
D-Dimer > 500 μg/L FEU - at admission; (N=206)		154 (74.76%)	47 (83.93%)	107 (71.33%)	0.095*
D-Dimer > 500 μg/L FEU – 7. DOH (N=150)		121 (80.67%)	34 (97.14%)	87 (75.65%)	0.003**
LDH >500 U/L – at admission (N=172)		54 (31.4%)	17 (28.33%)	37 (33.04%)	0.645*
LDH >500 U/L – 7. DOH (N=46)		10 (21.74%)	4 (28.57%)	6 (18.75%)	0.723**

\* - Chi-squared with Yates correction; \*\* - Fisher's exact test. All variables are presented as N (%).

**Table S4.** Additional data on comparison of general patients' characteristics between survivors and non-survivors.

	Parameter	Survivors (N=213)	Non-survivors (N=16)	p-value
BMI, ranges (N=154)	<25	18 (12.95%)	1 (6.67%)	0.696*
	25-29.9	52 (37.41%)	3 (20%)	0.292*
	30-34.9	41 (29.5%)	5 (33.33%)	0.771*
	35-39.9	20 (14.39%)	3 (20%)	0.472*
	≥ 40	8 (5.76%)	3 (20%)	0.077***
Blood type (N=62)	A Rh+	12 (25%)	6 (42.86%)	0.315*
	A Rh-	3(6.25%)	0 (0%)	1***
	B Rh+	11 (22.92%)	1 (7.14%)	0.267*
	B Rh-	2 (4.17%)	2 (14.29%)	0.217***
	AB Rh+	2 (4.17%)	0 (0%)	1***
	AB Rh-	2 (4.17%)	0 (0%)	1***
	O Rh+	15 (31.25%)	5 (35.71%)	0.755*
	O Rh-	1 (2.08%)	0 (0%)	1***

\* - Chi-squared with Yates correction; \*\* - Mann-Whitney U test; \*\*\* - Fisher's exact test. Continuous variables are presented as median (IQR), categorical variables are presented as N (%).

**Table S5.** The correlations between patients' general and clinical characteristics (categorical variables) and the need for mechanical ventilation and ICU treatment.

Parameter		Mechanical ventilation				ICU treatment			
		no	yes	phi	p	no	yes	phi	p
Sex (N=229)	female	51 (24.64%)	6 (27.27%)	0.02	0.990*	50 (25.25%)	7 (22.58%)	0.02	0.923*
	male	156 (75.36%)	16 (72.73%)			148 (74.75%)	24 (77.42%)		
BMI, ranges (N=154)	18-24.9 kg/m <sup>2</sup>	18 (13.53%)	1 (4.76%)	0.09	0.474**	18 (14.17%)	1 (3.7%)	0.12	0.199**
	25-29.9 kg/m <sup>2</sup>	50 (37.59%)	5 (23.81%)	0.1	0.327**	47 (37.01%)	8 (29.63%)	0.06	0.613*
	30-34.9 kg/m <sup>2</sup>	40 (30.08%)	6 (28.57%)	0.01	1*	38 (29.92%)	8 (29.63%)	0	1*
	35-39.9 kg/m <sup>2</sup>	18 (13.53%)	5 (23.81%)	0.1	0.318**	17 (13.39%)	6 (22.22%)	0.09	0.244**
	≥ 40 kg/m <sup>2</sup>	7 (5.26%)	4 (19.05%)	0.18	0.045**	7 (5.51%)	4 (14.81%)	0.14	0.103**
Comorbidities (N=229)	Comorbidities (any of the following)	79 (38.16%)	14 (63.64%)	0.15	0.037*	76 (38.38%)	17 (54.84%)	0.11	0.124*
	Hypertension	30 (14.49%)	4 (18.18%)	0.03	0.751**	28 (14.14%)	6 (19.35%)	0.05	0.423**
	Asthma	17 (8.21%)	1 (4.55%)	0.04	1**	15 (7.58%)	3 (9.68%)	0.03	0.718**
	Chronic arrhythmia	3 (1.45%)	2 (9.09%)	0.15	0.074**	4 (2.02%)	1 (3.23%)	0.03	0.520**
	Diabetes	13 (6.28%)	5 (22.73%)	0.18	0.019**	11 (5.56%)	7 (22.58%)	0.22	0.005**
	Insulin resistance	4 (1.93%)	2 (.09%)	0.13	0.104**	4 (2.02%)	2 (6.45%)	0.09	0.188**
	Dyslipidemia	5 (2.42%)	1 (4.55%)	0.04	0.458**	5 (2.53%)	1 (3.23%)	0.02	0.587**
	Hypothyroidism	8 (3.86%)	1 (4.55%)	0.01	0.604**	7 (3.54%)	2 (6.45%)	0.05	0.350**
Smoking (N=164)	Hashimoto disease	7 (3.38%)	0 (0%)	0.06	1**	6 (3.03%)	1 (3.23%)	0	1**
	Current	10 (6.58%)	3 (25%)	0.18	0.057**	9 (6.12%)	4 (23.53%)	0.2	0.032**
Symptoms (N=229)	Current or former	15 (9.87%)	5 (41.67%)	0.25	0.007**	14 (9.52%)	6 (35.29%)	0.24	0.008**
	Dyspnea	189 (91.3%)	21 (95.45%)	0.04	1**	181 (91.41)	29 (93.55%)	0.03	1
	Fever	182 (87.92%)	13 (59.09%)	0.24	0.002**	174 (87.88%)	21 (67.74%)	0.19	0.011**
	Cough	180 (86.96%)	15 (68.18%)	0.16	0.028**	173 (87.37%)	22 (70.97%)	0.16	0.027**
	Fatigue	121 (58.45%)	9 (40.91%)	0.1	0.176*	116 (58.59%)	14 (45.16%)	0.09	0.227*
	Diarrhea	40 (19.32%)	1 (4.55%)	0.11	0.139**	40 (20.2%)	1 (3.23%)	0.15	0.041*
	Nausea or vomiting	25 (12.08%)	2 (9.09%)	0.03	1**	26 (13.13%)	1 (3.23%)	0.11	0.140**
	Myalgia	64 (30.92%)	3 (13.64%)	0.11	0.148**	61 (30.81%)	6 (19.35%)	0.09	0.275*
	Sore throat	16 (7.73%)	2 (.09%)	0.01	0.686**	16 (8.08%)	2 (6.45%)	0.02	1**
	Headache	41 (19.81%)	1 (4.55%)	0.12	0.088**	39 (19.7%)	3 (9.68%)	0.09	0.275*
	Smell and/or taste disorders	40 (19.32%)	3 (13.64%)	0.04	0.774**	38 (19.19%)	5 (16.13%)	0.03	0.874*
	Smell disorders	34 (16.43%)	3 (13.64%)	0.02	1**	32 (16.16%)	5 (16.13%)	0	1*
	Taste disorders	34 (16.43%)	3 (13.64%)	0.02	1**	32 (16.16%)	5 (16.13%)	0	1*
	Hemoptysis	7 (3.38%)	1 (4.55%)	0.02	0.560**	6 (3.03%)	2 (6.45%)	0.06	0.296*
Lung involvement on CT ≥ 50% (%) (N=207)		38 (20.11%)	13 (72.22%)	0.34	<0.001**	35 (19.13%)	16 (66.67%)	0.35	<0.001*
SpO2 at admission <90% (N=190)		77 (44%)	11 (73.33%)	0.16	0.055*	74 (43.53%)	14 (70%)	0.16	0.045*
Conventional oxygen therapy (N=229)		200 (96.62%)	22 (100%)	0.06	1**	191 (96.46%)	31 (100%)	0.07	0.598**
HFNO (N=229)		36 (17.39%)	19 (86.36%)	0.48	<0.001*	29 (14.65%)	26 (83.87%)	0.55	<0.001*
Mechanical ventilation (N=229)		-	-	-	-	1 (0.51%)	21 (67.74%)	0.78	<0.001**
ECMO (N=229)		5 (2.42%)	3 (13.64%)	0.18	0.032**	6 (3.03%)	2 (6.45%)	0.06	0.296**
ICU admission (N=229)		10 (4.83%)	21 (95.45%)	0.78	<0.001**	-	-	-	-
Vasopressors (N=229)		0 (0%)	21 (95.45%)	0.97	<0.001**	1 (0.51%)	20 (64.52%)	0.76	<0.001**
CRRT (N=229)		0 (0%)	5 (22.73%)	0.46	<0.001**	0 (0%)	5 (16.13%)	0.38	<0.001**

\* chi-squared test with Yates' correction; \*\* Fisher's exact test; All variables are presented as N (%).

**Table S6.** The correlations between patients' general and clinical characteristics and laboratory parameters (presented as continuous variables) and the need for mechanical ventilation and ICU treatment.

Parameter	Mechanical ventilation		ICU treatment	
	rho	p-value*	rho	p-value*
Age (N=229)	0.12	0.066	0.04	0.592
Weight (N=160)	0.19 (w/o 0.17)	0.016 (w/o 0.033)	0.14 (w/o 0.12)	0.076 (w/o 0.120)
BMI (N=154)	0.21 (w/o 0.17)	0.009 (w/o 0.040)	0.19 (w/o 0.16)	0.017 (w/o 0.054)
Percentage of lung involvement on CT (N=207)	0.35	<0.001	0.36	<0.001
SpO2 at admission (N=190)	0.25 (w/o 0.15)	<0.001 (w/o 0.034)	-0.2 (w/o 0.16)	<0.001 (w/o 0.026)
WBC - at admission (N=227)	0.26	<0.001	0.28	<0.001
WBC - 7. DOH (N=187)	0.32 (w/o 0.28)	<0.001	0.25 (w/o 0.22)	<0.001 (w/o 0.003)
Neutrophil count - at admission (N=226)	0.27	<0.001	0.3	<0.001
Neutrophil count - 7. DOH (N=186)	0.39 (w/o 0.38)	<0.001	0.36	<0.001
Neutrophil percentage - at admission (N=226)	0.2	0.002 (w/o 0.003)	0.27	<0.001
Neutrophil percentage - 7. DOH (N=186)	0.34	<0.001	0.39	<0.001
Lymphocyte count - at admission (N=226)	0.01 (w/o 0.02)	0.898 (w/o 0.821)	0.08 (w/o 0.07)	0.237 (w/o 0.276)
Lymphocyte count - 7. DOH (N=186)	-0.25	<0.001 (w/o 0.001)	-0.33	<0.001
Lymphocyte percentage - at admission (N=226)	-0.24 (w/o 0.23)	<0.001	-0.31	<0.001
Lymphocyte percentage - 7. DOH (N=186)	-0.43	<0.001	-0.46	<0.001
NLR - at admission (N=226)	0.23	<0.001 (w/o 0.001)	0.3 (w/o 0.31)	<0.001
NLR - 7. DOH (N=186)	0.42 (w/o 0.39)	<0.001	0.45 (w/o 0.43)	<0.001
IG count - at admission (N=217)	0.32 (w/o 0.30)	<0.001	0.35 (w/o 0.32)	<0.001
IG count - 7. DOH (N=186)	0.29 (w/o 0.21)	<0.001 (w/o 0.005)	0.20 (w/o 0.13)	0.007 (w/o 0.068)
IG percentage - at admission (N=217)	0.33 (w/o 0.29)	<0.001	0.37 (w/o 0.33)	<0.001
IG percentage - 7. DOH (N=186)	0.24 (w/o 0.18)	<0.001 (w/o 0.016)	0.16 (w/o 0.11)	0.028 (w/o 0.137)
RBC count - at admission (N=227)	0.06	0.363 (w/o 0.400)	0.05	0.420 (w/o 0.473)
RBC count - 7. DOH (N=187)	-0.41 (w/o -0.42)	<0.001	-0.34	<0.001
hemoglobin - at admission to hospital (N=227)	0.01	0.830 (w/o 0.923)	-0.01 (w/o -0.02)	0.929 (w/o 0.818)
hemoglobin - 7. DOH (N=187)	-0.42	<0.001	-0.33	<0.001
hematocrit - at admission (N=227)	0.05	0.435 (w/o 0.472)	0.04	0.537 (w/o 0.592)
hematocrit - 7. DOH (N=187)	-0.36 (w/o -0.37)	<0.001	-0.29 (w/o -0.30)	<0.001
PLT - at admission to hospital (N=227)	0.14 (w/o 0.15)	0.038 (w/o 0.025)	0.19 (w/o 0.17)	0.003 (w/o 0.012)
PLT - 7. DOH (N=187)	-0.04 (w/o -0.01)	0.573 (w/o 0.911)	-0.03 (w/o 0)	0.683 (w/o 0.975)
CRP - at admission (N=222)	0.29 (w/o 0.3)	<0.001	0.28 (w/o 0.27)	<0.001
CRP - 7. DOH (N=181)	0.48 (w/o 0.43)	<0.001	0.51 (w/o 0.48)	<0.001
Ferritin - at admission (N=61)	0.29 (w/o 0.3)	0.025 (w/o 0.018)	0.22 (w/o 0.24)	0.093 (w/o 0.068)
Ferritin - 7. DOH (N=31)	0.12	0.529	0.38	0.037
IL-6 - at admission (N=116)	0.18	0.049	0.11	0.236
IL-6 - 7. DOH (N=53)	0.33	0.015	0.43	0.001
AT III - at admission (N=17)	0.16	0.542	0.12	0.650
AT III - 7. DOH (N=10)	-0.29	0.413	-0.29	0.413
PCT - at admission (N=205)	0.38 (w/o 0.039)	<0.001	0.37 (w/o 0.39)	<0.001
PCT - 7. DOH (N=102)	0.56	<0.001	0.61	<0.001
D-Dimer - at admission (N=206)	0.24	<0.001 (w/o 0.001)	0.27	<0.001
D-Dimer - 7. DOH (N=150)	0.36	<0.001	0.36	<0.001
PT - at admission (N=198)	0.03 (w/o -0.02)	0.672 (w/o 0.812)	0.12 (w/o 0.11)	0.093 (w/o 0.126)
PT - 7. DOH (N=80)	0.17 (w/o 0.18)	0.139 (w/o 0.113)	0.26 (w/o 0.28)	0.020 (w/o 0.013)
INR - at admission (N=199)	0.02 (w/o -0.03)	0.768 (w/o 0.780)	0.12 (w/o 0.07)	0.092 (w/o 0.469)
INR - 7. DOH (N=80)	0.15 (w/o 0.16)	0.183 (w/o 0.150)	0.25 (w/o 0.26)	0.028 (w/o 0.109)
APTT - at admission (N=196)	-0.13 (w/o -0.12)	0.077 (w/o 0.101)	-0.12 (w/o -0.11)	0.091 (w/o 0.128)
APTT - 7. DOH (N=65)	0.09	0.454	0.17	0.167
Fibrinogen - at admission (N=62)	-0.08 (w/o 0.04)	0.538 (w/o 0.751)	-0.07 (w/o -0.04)	0.574 (w/o 0.740)
Fibrinogen - 7. DOH (N=39)	0.15	0.355	0.14	0.402
LDH - at admission (N=172)	0.37	<0.001	0.35	<0.001

LDH - 7. DOH (N=46)	0.36	0.014	0.41	0.005
hs-TnI - at admission (N=153)	0.39	<0.001	0.33	<0.001
hs-TnI - 7. DOH (N=40)	0.55	<0.001	0.56	<0.001
CK - at admission (N=142)	0.14	0.088	0.17	0.046
CK - 7. DOH (N=38)	0.55	<0.001	0.43	0.007
CK-MB - at admission (N=124)	0.22	0.014	0.21	0.017
CK-MB - 7. DOH (N=27)	0.35	0.074	0.26	0.186
NT-proBNP - at admission (N=142)	0.29	<0.001	0.32	<0.001
NT-proBNP - 7. DOH (N=42)	0.48	0.001	0.39	0.010
Myoglobin - at admission (N=15)	0.69	0.004	0.39	0.147
Myoglobin - 7. DOH (N=11)	0.60	0.053	0.60	0.053
Creatinine - at admission (N=222)	0.22 (w/o 0.18)	0.001 (w/o 0.006)	0.11 (w/o 0.11)	0.090 (w/o 0.114)
Creatinine - 7. DOH (N=169)	0.03 (w/o -0.05)	0.695 (w/o 0.485)	0 ( w/o -0.07)	0.959 (w/o 0.355)
EGFR - at admission to hospital (N=215)	-0.24	<0.001	-0.1	0.132
EGFR - 7. DOH (N=169)	-0.02 (w/o 0.05)	0.835 (w/o 0.488)	0.04 (w/o 0.1)	0.598 (w/o 0.204)
Urea - at admission (N=209)	0.28 (w/o 0.24)	<0.001	0.26 (w/o 0.25)	<0.001
Urea - 7. DOH (N=124)	0.53 (w/o 0.47)	<0.001	0.56 (w/o 0.52)	<0.001
ALT - at admission (N=226)	0 (w/o -0.01)	0.978 (w/o 0.836)	0.01 (w/o 0.02)	0.839 (w/o 0.779)
ALT - 7. DOH (N=150)	-0.3	<0.001	-0.24	0.003
AST - at admission (N=219)	0.13	0.057	0.09	0.203
AST - 7. DOH (N=148)	-0.13	0.124	-0.07	0.365
GGT - at admission (N=58)	0.24	0.064	0.21	0.113
GGT - 7. DOH (N=41)	-0.03	0.858	0.01	0.931
Total bilirubin - at admission (N=165)	0.13	0.089	0.16	0.039
Total bilirubin - 7. DOH (N=63)	-0.20	0.113	-0.06	0.625
Albumin – at admission (N=26)	-0.42	0.032	-0.44	0.025
Total calcium – at admission (N=42)	-0.41	0.007	-0.33	0.036
Total calcium - 7. DOH (N=34)	-0.51	0.002	-0.49	0.004
Vitamin D3 - at admission (N=81)	-0.08 (w/o -0.13)	0.502 (w/o 0.250)	-0.02 (w/o -0.07)	0.887 (w/o 0.559)
Vitamin D3 - 7. DOH (N=6)	-	-	-0.83	0.042
Time from the onset of symptoms to hospital admission (N=229)	-0.14	0.034	-0.10	0.441
Maximum flow - HFNO (N=55)	0.27	0.046	0.42	0.002
Maximum FiO2 – HFNO (N=55)	0.29	0.030	0.32	0.019
Time from the onset of symptoms to ICU admission (N=31)	-0.21	0.257	-	-

w/o – without outliers. \* - Spearman's correlation.

**Table S7.** The correlations between patients' laboratory parameters (presented as categorical variables) and the need for mechanical ventilation and ICU treatment.

Parameter		Mechanical ventilation				ICU treatment			
		no	yes	phi	p	no	yes	phi	p
WBC - at admission, ranges (N=227)	<4.5 ×10 <sup>3</sup> /μL	51 (24.88%)	3 (13.64%)	0.08	0.361*	50 (25.1%)	4 (12.9%)	0.1	0.192*
	4.5-10 ×10 <sup>3</sup> /μL	132 (64.39%)	7 (31.82%)	0.2	0.006*	125 (63.78%)	14 (45.16%)	0.13	0.075*
	>10 ×10 <sup>3</sup> /μL	22 (10.73%)	12 (54.55%)	0.36	<0.001**	21 (10.71%)	13 (41.94%)	0.3	<0.001**
WBC – 7. DOH, ranges (N=187)	<4.5 ×10 <sup>3</sup> /μL	7 (4.17%)	0 (0%)	0.07	1**	7 (4.43%)	0 (0%)	0.08	0.598**
	4.5-10 ×10 <sup>3</sup> /μL	116 (69.05%)	6 (31.58%)	0.24	0.003*	109 (68.99%)	13 (44.83%)	0.18	0.021*
	>10 ×10 <sup>3</sup> /μL	45 (26.79%)	13 (68.42%)	0.27	0.001*	42 (26.58%)	16 (55.17%)	0.22	0.004*
Neutrophil count - at admission, ranges (N=226)	<1.9 ×10 <sup>3</sup> /μL	13 (6.37%)	0 (0%)	0.08	0.622**	13 (6.67%)	0 (0%)	0.1	0.224**
	1.9-7 ×10 <sup>3</sup> /μL	152 (74.51%)	8 (36.36%)	0.25	<0.001*	148 (75.9%)	12 (38.71%)	0.28	<0.001*
	>7 ×10 <sup>3</sup> /μL	39 (19.12%)	14 (63.64%)	0.31	<0.001*	34 (17.44%)	19 (61.29%)	0.36	<0.001*
Neutrophil count - 7. DOH, ranges (N=186)	<1.9 ×10 <sup>3</sup> /μL	5 (2.99%)	0 (0%)	0.06	1**	5 (3.18%)	0 (0%)	0.07	1**
	1.9-7 ×10 <sup>3</sup> /μL	124 (74.25%)	3 (15.79%)	0.38	<0.001*	117 (74.53%)	10 (34.48%)	0.31	<0.001*
	>7 ×10 <sup>3</sup> /μL	38 (22.75%)	16 (84.21%)	0.41	<0.001*	35 (22.29%)	19 (65.52%)	0.35	<0.001*
Neutrophil percentage - at admission, ranges (N=226)	<40%	1 (0.49%)	0 (0%)	0.02	1**	1 (0.51%)	0 (0%)	0.03	1**
	40-68%	62 (30.39%)	0 (0%)	0.2	0.005*	61 (31.28%)	1 (3.23%)	0.22	0.002*
	>68%	141 (69.12%)	22 (100%)	0.2	0.005*	133 (68.21%)	30 (96.77%)	0.22	0.002*
Neutrophil percentage - 7. DOH, ranges (N=186)	<40%	7 (4.19%)	0 (0%)	0.07	1**	7 (4.46%)	0 (0%)	0.08	0.598**
	40-68%	108 (64.67%)	5 (26.32%)	0.24	0.003*	105 (66.88%)	8 (27.59%)	0.29	<0.001*
	>68%	52 (31.14%)	14 (73.68%)	0.27	0.001*	45 (28.66%)	21 (72.41%)	0.33	<0.001*
Lymphocyte count - at admission, ranges (N=226)	<0.9 ×10 <sup>3</sup> /μL	94 (46.08%)	9 (40.91%)	0.03	0.812*	87 (44.62%)	16 (51.61%)	0.05	0.594*
	0.9-5 ×10 <sup>3</sup> /μL	110 (53.92%)	13 (59.09%)	0.03	0.812*	108 (55.38%)	15 (48.39%)	-0.05	0.594*
	>5 ×10 <sup>3</sup> /μL	0 (0%)	0 (0%)	-	-	0 (0%)	0 (0%)	-	-
Lymphocyte count - 7. DOH, ranges (N=186)	<0.9 ×10 <sup>3</sup> /μL	12 (7.19%)	7 (36.84%)	0.2	0.001**	11 (7.01%)	8 (27.59%)	0.25	0.038**
	0.9-5 ×10 <sup>3</sup> /μL	153 (91.62%)	12 (63.16%)	0.27	0.002**	144 (91.72%)	21 (72.41%)	0.22	0.007**
	>5 ×10 <sup>3</sup> /μL	2 (1.2%)	0 (0%)	0.04	1**	2 (1.27%)	0 (0%)	0.04	1**
Lymphocyte percentage - at admission, ranges (N=226)	<19%	116 (56.86%)	22 (100%)	0.26	<0.001*	108 (55.38%)	30 (96.77%)	0.29	<0.001*
	19-48%	87 (42.65%)	0 (0%)	0.26	<0.001*	86 (44.1%)	1 (3.23%)	0.29	<0.001*
	>48%	1 (0.49%)	0 (0%)	0.02	1**	1 (0.51%)	0 (0%)	0.03	1**
Lymphocyte percentage - 7. DOH, ranges (N=186)	<19%	47 (28.14%)	17 (89.47%)	0.39	<0.001*	40 (25.48%)	24 (82.76%)	0.44	<0.001*
	19-48%	116 (69.46%)	2 (10.53%)	0.37	<0.001*	113 (71.97%)	5 (17.24%)	0.41	<0.001*
	>48%	4 (2.4%)	0 (0%)	0.05	1**	4 (2.55%)	0 (0%)	0.06	1**
NLR ≥2 - at admission (N=226)		184 (90.2%)	22 (100%)	0.1	0.231**	176 (90.26%)	30 (96.77%)	0.08	0.324**
NLR ≥2- 7. DOH (N=186)		99 (59.28%)	19 (100%)	0.26	0.001*	90 (57.32%)	28 (96.55%)	0.30	<0.001*
PLT - at admission, ranges (N=227)	<150 ×10 <sup>3</sup> /μL	40 (19.51%)	1 (4.55%)	0.12	0.139**	41 (20.92%)	0 (0%)	0.19	0.010*
	150-400 ×10 <sup>3</sup> /μL	155 (75.61%)	16 (72.73%)	0.02	0.970*	147 (75%)	24 (77.42%)	0.02	0.947*
	>400 ×10 <sup>3</sup> /μL	10 (4.88%)	5 (22.73%)	0.21	0.008**	8 (4.08%)	7 (22.58%)	0.26	0.001**
PLT – 7. DOH, ranges (N=187)	<150 ×10 <sup>3</sup> /μL	1 (0.6%)	1 (5.26%)	0.14	0.193**	1 (0.63%)	1 (3.45%)	0.1	0.287**
	150-400 ×10 <sup>3</sup> /μL	85 (50.6%)	8 (42.11%)	0.05	0.646*	80 (50.63%)	13 (44.83%)	0.04	0.709*
	>400 ×10 <sup>3</sup> /μL	82 (48.81%)	10 (52.63%)	0.02	0.941*	77 (48.73%)	15 (51.72%)	0.02	0.925*
CRP>100 mg/L – at admission (N=222)		66 (32.84%)	16 (76.19%)	0.26	<0.001	61 (31.94%)	21 (67.75%)	0.26	<0.001
CRP>100 mg/L – 7. DOH (N=181)		2 (1.24%)	7 (35%)	0.49	<0.001	2 (1.32%)	7 (24.14%)	0.39	<0.001
PCT > 0.5 ng/mL – at admission (N=205)		12 (6.56%)	10 (45.45%)	0.39	<0.001**	11 (6.32%)	11 (35.48%)	0.34	<0.001**
PCT > 0.5 ng/mL – 7. DOH (N=102)		3 (3.57%)	7 (38.89%)	0.45	<0.001**	2 (2.63%)	8 (30.77%)	0.41	<0.001**
D-Dimer > 500 μg/L FEU - at admission; (N=206)		133 (71.89%)	21 (100%)	0.20	0.003**	125 (71.02%)	29 (96.67%)	0.21	0.001**
D-Dimer > 500 μg/L FEU – 7. DOH; (N=150)		101 (77.69%)	20 (13.33%)	0.19	0.014**	93 (76.23%)	28 (100%)	0.23	0.002**
LDH >500 U/L – at admission (N=172)		41 (26.11%)	13 (86.67%)	0.37	<0.001**	37 (24.5%)	17 (80.95%)	0.40	<0.001**
LDH >500 U/L – 7. DOH (N=46)		8 (19.05%)	2 (50%)	0.21	0.201**	6 (15.79%)	4 (50%)	0.31	0.055**

\* chi-squared test with Yates' correction; \*\* Fisher's exact test; All variables are presented as N (%).



**Table S8.** Univariate logistic regression analysis of COVID-19 symptoms for the prediction of death, mechanical ventilation and ICU treatment.

Symptom	death			MV			ICU treatment		
	OR	95%CI	p	OR	95%CI	p	OR	95%CI	p
Dyspnoea	1.39	0.17-11.1	0.202	2	0.25-15.75	0.510	1.36	0.3-6.21	0.690
Fever	0.25	0.09-0.75	0.013	0.2	0.08-0.51	<0.001	0.29	0.12-0.69	0.005
Cough	0.25	0.09-0.75	0.013	0.32	0.12-0.86	0.024	0.35	0.15-0.85	0.021
Fatigue	0.57	0.2-1.59	0.281	0.49	0.2-1.2	0.120	0.58	0.27-1.25	0.164
Dairrhoea	0.29	0.04-2.25	0.235	0.2	0.03-1.53	0.200	0.13	0.02-1	0.049
Nausea or vomiting	0.48	0.06-3.78	0.486	0.73	0.16-3.3	0.681	0.22	0.03-1.69	0.145
Myalgia	0.33	0.07-1.47	0.145	0.35	0.1-1.24	0.103	0.54	0.21-1.38	0.198
Sore throat	0.77	0.1-6.18	0.805	1.19	0.26-5.57	0.822	0.78	0.17-3.59	0.755
Headache	0.28	0.04-2.18	0.224	0.19	0.03-1.48	0.113	0.44	0.13-1.51	0.191
Smell or taste disorders	0.6	0.13-2.74	0.509	0.66	0.19-2.34	0.519	1	0.36-2.79	0.996
Smell disorders	0.72	0.16-3.34	0.681	0.8	0.23-2.87	0.736	1	0.36-2.79	0.996
Taste disorders	0.72	0.16-3.34	0.681	0.8	0.23-2.87	0.736	0.81	0.29-2.25	0.685