

Supplementary Table 1. Internal guide for the management of patients with Covid-19 at Cisanello hospital during the second wave of the pandemic.

Patientcategory	Clinicalcharacteristics	Antiviral treatment (Remdesivir)	Othertherapies	Immunosuppressant agents
LEVEL 1	No evidence of pneumonia Paucisymptomatic patient	NO	NO	NO
LEVEL 2	Radiological evidence of Pneumonia PiO ₂ /FiO ₂ > 300 FR < 24 bpm SaO ₂ > 93% No need for supplementary O ₂ therapy or need of O ₂ therapy at low flow	P/F 350-200: TSUNAMI Study (convalescent plasma) If need of supplementary O ₂ therapy: REMDESIVIR	LMWH Prophylactic dose	NO
LEVEL 3	Radiological evidence of Pneumonia PiO ₂ /FiO ₂ 200-300 FR > 24 bpm SaO ₂ < 93% Need for supplementary O ₂ therapy or need of O ₂ therapy at low flow	P/F > 200: TSUNAMI Study (convalescent plasma) REMDESIVIR*	LMWH Prophylactic dose	DEXAMETHASONE 6 mg iv daily Consider: Tocilizumab OR Baricitinib
LEVEL 4	Radiological evidence of Pneumonia PiO ₂ /FiO ₂ < 200 FR > 24 bpm SaO ₂ < 90% Need for HFNV, NIV, invasive MV	NO*	LMWH Prophylactic dose	DEXAMETHASONE 6 mg iv daily Consider: Tocilizumab OR Baricitinib

* REMDESIVIR contraindicated if HFNV, NIV, invasive MV or symptoms > 10 days

Supplementary Table 2. Comparison of patients who were admitted within the first 5 days from symptoms onset and those who did not.

	Early admission to the hospital N=142	Late admission to the hospital N=170	<i>p</i>
Demographics			
Age, median, IQR	76 (60.5-84)	66 (56-76)	<i><0.001</i>
Male sex	84 (59.2%)	57 (33.5%)	0.182
LTCF stay before admission	11 (7.7%)	1 (0.6%)	<i>0.001</i>
Comorbidities			
Chronic pulmonary disease	21 (15%)	11 (6.5)	0.015
Hypertension	68 (47.9%)	78 (45.9%)	0.724
Chronic heart disease	57 (40.1%)	37 (21.8%)	<i><0.001</i>
Diabetes mellitus	36 (25.4%)	38 (22.4%)	0.535
Cerebrovascular disease	23 (16.2%)	11 (6.5%)	0.006
Chronic Renal disease	9 (6.3%)	6 (3.5%)	0.248
Solid neoplasm	15 (10.6%)	14 (8.2%)	0.481
Charlson Comorbidity Index, median IQR	1 (0-3)	1 (0-2)	0.055
Symptoms before admission			
Temperature > 37.5	88 (62%)	126 (74.1%)	<i>0.021</i>
Cough	39 (27.5%)	86 (50.6%)	<i><0.001</i>
Asthenia	32 (22.5%)	50 (29.4%)	0.169
Dyspnea	58 (40.8%)	77 (45.3%)	0.430
Diarrhea	15 (10.6%)	23 (13.5%)	0.425
Myalgias	22 (15.5%)	26 (15.3%)	0.961
Clinical features on admission			
Temperature > 37.5	57 (40.1%)	76 (44.7%)	0.417
P/F ratio < 300	67 (47.2%)	98 (57.6%)	0.065
P/F ratio, median (IQRs)	290 (253-333)	295 (260-329)	0.122
Lymphocytes <800 cells/mm ³	56 (39.4%)	87 (51.2%)	0.038
Platelets <150 x 10 ³ /mcL	44 (30.9%)	43 (25.3)	0.275
D-dimer > 1000 ng/ml (n=176)	31/86 (36%)	17/90 (18.9%)	<i>0.011</i>
C-reactive protein mg/dl, median, IQR	4.5 (2.2-8.9)	5.9 (2.76-9.75)	<i>0.020</i>
C-reactive protein > 5 mg/dl	62 (43.7%)	104 (61.2%)	<i>0.002</i>
Procalcitonin ng/ml, median, IQR	0.06-1.17	0.09 (0.07-0.15)	0.957
LDH > 250 U/L (n=229)	63/106 (59.4%)	84/123 (68.3%)	0.163
COVID-19 treatment during hospital stay			
Early remdesivir (<5 days from symptoms)	90 (63.4%)	-	<i><0.001</i>
Corticosteroids	142 (100%)	169 (99.4%)	0.360
Low-molecular weight heparin	136 (95.8%)	166 (97.6%)	0.350
Plasma	28 (19.7%)	32 (18.8%)	0.842
Baricitinib	10 (7%)	36 (21.2%)	<i><0.001</i>
Outcome			
COVID-19 progression*	53 (37.3%)	80 (47.1%)	0.083

* Composite of HFNC, NIV, invasive MV, death

Bold italic: statistically significant differences with $p < 0.05$

Supplementary Table 3. Comparison of patients who received early remdesivir vs those who received late remdesivir in the subgroup of patients admitted to the hospital within 5 days from onset of symptoms.

	Early remdesivir N=90 (%)	Late remdesivir N= 52 (%)	<i>p</i>
Demographics			
Age, median, IQR	77 (63-85)	68 (58-81.25)	0.024
Male sex	47 (52.2%)	37 (71.2%)	0.027
Comorbidities			
Chronic pulmonary disease	15 (16.9%)	6 (11.8%)	0.417
Hypertension	41 (45.6%)	27 (51.9%)	0.464
Chronic heart disease	38 (42.2%)	19 (36.5%)	0.506
Diabetes mellitus	26 (28.9%)	10 (19.2%)	0.202
Cerebrovascular disease	19 (21.1%)	4 (7.7%)	0.037
Chronic Renal disease	6 (6.7%)	3 (5.8%)	0.833
Solid neoplasm	12 (13.3%)	3 (5.8%)	0.158
Charlson Comorbidity Index, median IQR	1 (1-2.75)	1 (0-4.75)	0.714
Symptoms before admission			
Temperature > 37.5	45 (50%)	43 (82.7%)	<0.001
Cough	24 (26.7%)	15 (28.8%)	0.779
Asthenia	24 (26.7%)	8 (15.4%)	0.121
Dyspnea	39 (43.3%)	19 (36.5%)	0.427
Diarrhea	10 (11.1%)	5 (9.6%)	0.780
Myalgias	17 (18.9%)	5 (9.6%)	0.141
Clinical features on admission			
Temperature > 37.5	29 (32.2%)	28 (53.8%)	0.011
P/F ratio < 300	41 (45.6%)	26 (50%)	0.609
P/F ratio, median (IQRs)	304 (261-338)	295 (260-324)	0.280
Lymphocytes <800 cells/mm ³	39 (43.3%)	17 (32.7%)	0.211
Platelets <150 x 10 ³ /mL	34 (37.8%)	10 (19.2%)	0.019
D-dimer > 1000 ng/ml (n=176)	21/53 (39.6%)	10/33 (30.3%)	0.381
C-reactive protein mg/dl, median, IQR	4.7 (2.2-9)	4 (2.2-8.1)	0.979
C-reactive protein > 5 mg/dl	41 (45.6%)	21 (40.4%)	0.549
Procalcitonin ng/ml, median, IQR	0.09 (0.07-0.2)	0.09 (0.05-0.15)	0.579
LDH > 250 U/L (n=229)	35/63 (55.6%)	28/43 (65.1%)	0.325
COVID-19 treatment during hospital stay			
	90 (100%)	52 (100%)	-
Corticosteroids	87 (96.7%)	49 (94.2%)	0.487
Low-molecular weight heparin	16 (17.8%)	12 (23.1%)	0.445
Plasma	8 (8.9%)	2 (3.8%)	0.258
Baricitinib			
Progression to severe COVID-19*	29 (32.2%)	24 (46.2%)	0.098

* defined as a composite of high-flow nasal cannula, non-invasive mechanical ventilation (MV), invasive MV or death