

**Supplementary Table S1:** Primary antibody data.

Antibody	Type	Clone/Code	Dilution	Source
Anti-Arginase	Monoclonal/Rabbit	E-P261	1:200	BioSB
Anti-CD3	Polyclonal/Rabbit	IR503	Ready-to-use	Dako
Anti-CD4	Monoclonal/Rabbit	4B12	Ready-to-use	Dako
Anti-CD8	Monoclonal/Rabbit	C8/144B	Ready-to-use	Dako
Anti-CD20	Monoclonal/Mouse	IR604	Ready-to-use	Dako
Anti-CD57	Monoclonal/Mouse	IR647	Ready-to-use	Dako
Anti-CD68	Monoclonal/Mouse	KP-1	1:400	BioSB
Anti-CCR4	Polyclonal/Rabbit	Ab216560	1:100	Abcam
Anti-IL-4	Polyclonal/Rabbit	PA5 25165	1:200	Thermo Fisher
Anti-INF- $\alpha$	Polyclonal/Rabbit	A0285	1:200	ABclonal
Anti-INF- $\gamma$	Polyclonal/Rabbit	Ab218426	1:100	Abcam
Anti-iNOS	Monoclonal/Rabbit	E-P261	1:100	BioSB
Anti-Perforin	Monoclonal/Mouse	5B10	1:200	BioSB
Anti-Sphingosine-1	Polyclonal/Rabbit	Ab71700	1:200	Abcam

**Supplementary Table S2:** Clinical data regarding Comorbidities, Computed tomography chest at admission, Relevant initial laboratory tests, Laboratory tests 24 hours before death and Therapeutic drugs.

	CASE 1	CASE 2	CASE 3	CASE 4	CASE 6	CASE 7
<b>Gender / Age</b>	Female, 87 years old	Male, 53 years old	Female, 85 years old	Male, 73 years old	Male, 80 years old	Male, 81 years old
<b>Comorbidities</b>	Systemic Arterial Hypertension Dyslipidemia Hypothyroidism Senile dementia	Class II obesity	Systemic Arterial Hypertension Brain Stroke Vascular Dementia	Type 2 Diabetes Mellitus Chronic Kidney Disease Dialysis Atrial Fibrillation Coronary Disease Heart Failure Peripheral Obstructive Artery Disease	Systemic Arterial Hypertension Coronary Disease Heart Failure Bronchial Asthma Class III obesity	Systemic Arterial Hypertension Chronic Kidney Disease Dialysis Brain Stroke
<b>Computed tomography chest at admission</b>	Diffuse and bilateral "opacities with ground-glass attenuation," thickening of the pulmonary septum, suggestive of viral pulmonary infection	Diffuse and bilateral "opacities with ground-glass attenuation" suggestive of viral pulmonary infection	Image of "opacities with ground-glass attenuation" upper left lobe, suggestive of viral pulmonary infection and small volume pleural effusion	Diffuse and bilateral "opacities with ground-glass attenuation", suggestive of viral pulmonary infection	Diffuse and bilateral "opacities with ground-glass attenuation", suggestive of viral pulmonary infection	Diffuse and bilateral "opacities with ground-glass attenuation", suggestive of viral pulmonary infection
<b>Relevant initial laboratory tests</b>	- C Reactive Protein=313mg/L - Globular volume=24.8% - Hemoglobin=8.7g/dL - Total leukocytes=15,100/ band cells=1208 (8%) and lymphocytes=604 (4%) - Blood platelets=366,000	- C-Reactive Protein=146mg/L - Globular volume=38.1% - Hemoglobin=13.5g/dL - Total leukocytes=11,000/band cells=550 (5%) and lymphocytes=990 (9%) - Blood platelets=325,000	- C-Reactive Protein=393mg /L; - Globular volume=28.7% - Hemoglobin=9.9g/dL - Total leukocytes=9,900/band cells=396 (4%) and lymphocytes=1,782 (18%) - Blood platelets=282,000	- C-Reactive Protein=83mg/L - Globular volume=25% - Hemoglobin=8.6g/dL - Total leukocytes=9,200/band cells=1,932 (21%) and lymphocytes=552 (6%) - Blood platelets=38,000	- C-Reactive Protein=52mg/L - Globular volume=37.5% - Hemoglobin=12.8g/dL - Total leukocytes=4,700/band cells=188 (4%) and lymphocytes=423 (9%) - Blood platelets=112,000	- C-Reactive Protein=301.6mg/L; - Globular volume=31.2% - Hemoglobin=10.7g/dL - Total leukocytes=11,800/band cells=1,770 (15%) and lymphocytes=354 (3%). - Blood platelets=252,000
<b>Laboratory tests 24 hours before death</b>	- C-Reactive Protein=201mg/dL; - Globular volume=26.6% - Hemoglobin=9.5g/dL - Leukocytes=15,000/ band cells=2400 (16%) and lymphocytes=1200 (8%); - Blood platelets=239,000	- C-Reactive Protein=133mg/dL; - Globular volume=19.5% - Hemoglobin=7.2g/dL - Leukocytes=50,200/ band cells=3012 (6%) and lymphocytes=3514 (7%). - Blood platelets=318,000	- C-Reactive Protein=139.9mg/dL; - Globular volume=30% - Hemoglobin=10g/dL - Leukocytes=9,900/band cells=693 (7%) and lymphocytes=891 (9%). - Blood platelets=481,000	- C-Reactive Protein=270mg/dL; - Globular volume=23% - Hemoglobin=8.0g/dL - Leukocytes=22,000/band cells=2420 (11%) and lymphocytes=440 (2%). - Blood platelets=356,000	- C-Reactive Protein=407mg/dL; - Globular volume=29.4% - Hemoglobin=9.7g/dL - Leukocytes=9,400/band cells=1,034 (11%) and lymphocytes=1,316 (14%). - Blood platelets=142,000	- C-Reactive Protein=291.5mg/dL; - Globular volume=27.1% - Hemoglobin=9.1g/dL - Leukocytes=24,900/band cells=1,743 (7%) and lymphocytes=498 (2%). - Blood platelets=175,000
<b>Therapeutic drugs</b>	- Hydroxychloroquine 800mg/day on the first day and 400mg/day on the other days + Azithromycin 500mg/day for 5 days; - Oseltamivir 150mg/day for 5 days; - Piperacillin + Tazobactam 18mg/day (choice of this antibiotic according to the protocol for the patient's profile)	- Hydroxychloroquine 800mg/day on the first day and 400mg/day on the other days + Azithromycin 500mg/day for 5 days; - Oseltamivir 150mg/day for 5 days; - Ceftriaxone 2g/day (choice of this antibiotic according to the protocol for the patient's profile).	- Piperacillin + tazobactam 18mg/day (choice of this antibiotic according to the protocol for the patient's profile).	- Hydroxychloroquine 800mg/day on the first day and 400mg/day on the other days + Azithromycin 500mg/day for 5 days; - Oseltamivir 150mg/day for 5 days; - Metronidazol 1,5g/day - Meropenem 1g/day, - Linezolid 1,2g/day (choice of these antibiotics according to the diagnosis and protocol for the patient's profile).	- Hydroxychloroquine 800mg/day on the first day and 400mg/day on the other days + Azithromycin 500mg/day for 5 days; - Oseltamivir 150mg/day for 5 days; - Ceftriaxone 2g/day (choice of this antibiotic according to the protocol for the patient's profile).	- Hydroxychloroquine 800mg/day on the first day and 400mg/day on the other days + Azithromycin 500mg/day for 5 days; - Oseltamivir 150mg/day for 5 days; - Meropenem 1g/day, Linezolid 1,2g/day (choice of these antibiotics according to the diagnosis and protocol for the patient's profile).

	CASE 8	CASE 9	CASE 10	CASE 11	CASE 12	CASE 13
<b>Gender / Age</b>	Female, 70 years old	Male, 86 years old	Male, 46 years old	Female, 93 years old	Male, 64 years old	Female 75 years old
<b>Comorbidities</b>	Type 2 Diabetes Mellitus Systemic Arterial Hypertension Liver transplantation (2013) – viral hepatitis Bladder cancer	Prostate cancer (previous surgical treatment – prostatectomy) Abdominal Aortic Aneurysm Giant Cells Arteritis	Dyslipidemia	Type 2 Diabetes Mellitus Systemic Arterial Hypertension Dyslipidemia Senile dementia Class I Obesity	Systemic Arterial Hypertension	Type 2 Diabetes Mellitus Systemic Arterial Hypertension Coronary Disease Total Atrioventricular Block Heart Failure Chronic Kidney Disease Dyslipidemia Bronchial Asthma/Chronic Obstructive Pulmonary Disease Hypothyroidism
<b>Computed tomography chest at admission</b>	Peripheral, multifocal and bilateral “opacities with ground-glass attenuation”, thickening of the pulmonary septum, suggestive of viral pulmonary infection. Presence of centrilobular and paraseptal emphysema. Cardiomegaly	Peripheral, multifocal and bilateral “opacities with ground-glass attenuation”, thickening of the pulmonary septum, suggestive of viral pulmonary infection.	Peripheral, multifocal and bilateral “opacities with ground-glass attenuation” suggest viral pulmonary infection.	Diffuse and bilateral “opacities with ground-glass attenuation”, thickening of the pulmonary septum, suggestive of viral pulmonary infection.	Diffuse and bilateral “opacities with ground-glass attenuation”, thickening of the pulmonary septum, suggestive of viral pulmonary infection. Presence of small pleural effusion.	Peripheral, multifocal and bilateral “opacities with ground-glass attenuation”, thickening of the pulmonary septum, suggestive of viral pulmonary infection. Presence of pulmonary consolidation, air bronchograms, and small pleural effusion. Presence of centrilobular and paraseptal emphysema. Cardiomegaly
<b>Relevant initial laboratory tests</b>	- C-Reactive Protein=16.0 mg/L; - Globular volume=40.4% - Hemoglobin=12.5g/dL - Total leukocytes=7,380/neutrophils=5,850 (80.6%) and lymphocytes=820 (11.1%). - Blood platelets=218.000	- C-Reactive Protein=105.9 mg/L; - Globular volume=32.5% - Hemoglobin=11.5g/dL - Total leukocytes=5,900 / band cells=708 (12%) and lymphocytes=472 (8%). - Blood platelets=110,000	- C-Reactive Protein=155.3 mg/L; - Globular volume=41.9% - Hemoglobin=15.2g/dL - Total leukocytes=4,500/band cells=315 (7%) and lymphocytes=1035 (23%). - Blood platelets=138,000	- C-Reactive Protein=107.5 mg/L; - D-dimer=6,544 µg/mL - Globular volume=27% - Hemoglobin=9.5g/dL - Total leukocytes=7,100/band cells=355 (5%) and lymphocytes=639 (9%). - Blood platelets=111,000	- C-Reactive Protein=420.6 mg/L; - Globular volume=32.4% - Hemoglobin=12.5g/dL - Total leukocytes=9,300/band cells=279 (3%) and lymphocytes=651 (7%). - Blood platelets=354.000/mm <sup>3</sup>	- C-Reactive Protein=300.8 mg/L; - Globular volume=30.1% - Hemoglobin=10.7g/dL - Total leukocytes=21,300/band cells=1,278 (6%) and lymphocytes=1,917 (9%). - Blood platelets =205.000/mm <sup>3</sup>
<b>Laboratory tests 24 hours before death</b>	- C-Reactive Protein=16.0mg/dL; - Globular volume=25.7 % - Hemoglobin=7.6g/dL - Total leukocytes=15,880 and lymphocytes=1260 (7.9%).	- C-Reactive Protein=307.5mg/dL; - Globular volume=25.2% - Hemoglobin=9.0g/dL - Leukocytes=8,900/band cells=445 (5%) and lymphocytes=712 (8%). - Blood platelets=99,000	- C-Reactive Protein=27.5mg/dL; - Globular volume=29% - Hemoglobin=10.2g/dL - Leukocytes=19,500/band cells=1365 (7%) and lymphocytes=975 (5%). - Blood platelets=175,000	- C-Reactive Protein=330mg/dL; - Troponin=14.5 pg/mL - Hemoglobin=8.1g/dL - Leukocytes=15,600/band cells=1092 (7%) and lymphocytes=780 (5%). - Blood platelets=76,000	- C-Reactive Protein=464.6mg/dL; - Globular volume=34.6 % - Hemoglobin=12.3g/dL - Leukocytes=10,600/band cells=424 (4%) and lymphocytes=116 (12%). - Blood platelets=434.000/ mm <sup>3</sup>	- C-Reactive Protein=186.7mg/dL; - Globular volume=26.6 % - Hemoglobin=9.3g/dL - Leukocytes=34,900/band cells=6,282 (18%) and lymphocytes=2,094 (6%). - Blood platelets =155.000/mm <sup>3</sup>
<b>Therapeutic drugs</b>	- Ceftriaxone 2g/day Azithromycin 500mg/day for 5 days; (choice of this antibiotic according to the protocol for the patient's profile) - Oseltamivir 150mg/day for 5 days; - Enoxaparin 1mg/kg/day- full anticoagulation, indicated due to high D-dimers values. - Prednisone 60mg/day. - Piperacillin + Tazobactam 18mg/day (sepsis therapy)	Drugs used in previous admission, one month before: - Hydroxychloroquine 900mg/day on the first day and 450mg/day on the other days + Azithromycin 500mg/day for 5 days; - Oseltamivir 150mg/day for 5 days; Current admission: - Meropenem 1g/day (choice of this antibiotic according to the diagnosis and protocol for the patient's profile)	-Azithromycin 500mg/day for 5 days; Dexamethasone 6mg/day	-Azithromycin 500mg/day for 5 days; -Oseltamivir 150mg/day for 5 days; -Meropenem 1g/day (choice of these antibiotics according to the diagnosis and protocol for the patient's profile) - Enoxaparin 1mg/kg/day- full anticoagulation for the treatment of pulmonary thromboembolism; - Dexamethasone 6mg/day	-Azithromycin 500mg/day for 5 days; -Ceftriaxone 2g/day (choice of this antibiotic according to the protocol for the patient's profile) -Dexamethasone 6mg/day -Enoxaparin 20mg/day (prophylactic dose adjusted - Chronic Kidney Disease) - Piperacillin + Tazobactam 18mg/day (sepsis therapy)	-Azithromycin 500mg/day for 5 days; -Ceftriaxone 2g/day (choice of this antibiotic according to the protocol for the patient's profile) -Dexamethasone 6mg/day -Enoxaparin 20mg/day (prophylactic dose adjusted - Chronic Kidney Disease) - Piperacillin + Tazobactam 18mg/day (sepsis therapy)

	CASE 15	CASE 16	CASE 17	CASE 18	CASE 19	CASE 20
<b>Gender / Age</b>	Male, 64 years old	Male, 57 years old	Female, 81 years old	Male, 57 years old	Female, 60 years old	Male, 75 years old
<b>Comorbidities</b>	Chronic Non-Dialysis Kidney Disease Kidney Transplant (02 – 1995 and 2011) Systemic Arterial Hypertension Coronary Disease Dyslipidemia Hyperuricemia Chronic Atrial Fibrillation Obstructive Sleep Apnea Benign Prostatic Hyperplasia Nephrolithiasis	Type 2 Diabetes Mellitus Systemic Arterial Hypertension Dyslipidemia Coronary Disease Hepatic Steatosis Class II Obesity	Type 2 Diabetes Mellitus Systemic Arterial Hypertension Dyslipidemia Osteoporosis	Systemic Arterial Hypertension	Left Ventricular uncompressed heart failure Bronchial Asthma Hodgkin's Lymphoma (30 years ago)	Type 2 Diabetes Mellitus Systemic Arterial Hypertension Dyslipidemia Hyperuricemia Coronary Disease (Acute Myocardium Infarction -Apr/2020)
<b>Computed tomography chest at admission</b>	Peripheral, multifocal and bilateral "opacities with ground-glass attenuation" suggest viral pulmonary infection.	Peripheral, multifocal and bilateral "opacities with ground-glass attenuation" suggest viral pulmonary infection. Presence of bronchial thickening.	Diffuse and bilateral "opacities with ground-glass attenuation", thickening of the pulmonary septum, suggestive of viral pulmonary infection.	Diffuse and bilateral "opacities with ground-glass attenuation", thickening of the pulmonary septum, suggestive of viral pulmonary infection.	Diffuse and bilateral "opacities with ground-glass attenuation", thickening of the pulmonary septum, suggestive of viral pulmonary infection. Presence of bronchial thickening. Presence of bilateral pleural thickening. The presence of pleural effusion is located on the left.	Diffuse and bilateral "opacities with ground-glass attenuation", thickening of the pulmonary septum, suggestive of viral pulmonary infection. Presence of bronchial thickening. Presence of diffuse bilateral bronchiectasis. Presence of paraseptal emphysema.
<b>Relevant initial laboratory tests</b>	- C-Reactive Protein=66.2 mg/L; - Globular volume=31% - Hemoglobin=11g/dL - Total leukocytes=4,000/band cells=0 (0%) and lymphocytes=960 (24%). - Blood platelets =162.000/mm <sup>3</sup>	- C-Reactive Protein=154.2 mg/L; - Globular volume=38.3% - Hemoglobin=14g/dL - Total leukocytes=14,500/band cells=1305 (9%) and lymphocytes=435 (3%). - Blood platelets =186.000/mm <sup>3</sup>	- C-Reactive Protein=199.4 mg/L; - Globular volume=41.3% - Hemoglobin=13.7g/dL - Total leukocytes=22,100/band cells=1326 (6%) and lymphocytes=663 (3%). - Blood platelets =243.000/mm <sup>3</sup>	- C-Reactive Protein=47.7 mg/L; - Globular volume=43.1% - Hemoglobin=15.8g/dL - Total leukocytes=7,400/band cells=0 (0%) and lymphocytes=1332 (18%). - Blood platelets =146.000/mm <sup>3</sup>	- C-Reactive Protein=158.6 mg/L; - Globular volume=35.5% - Hemoglobin=11.9g/dL - Total leukocytes=8,100/band cells=81 (1%) and lymphocytes=405 (5%). - Blood platelets =244.000/mm <sup>3</sup>	- C-Reactive Protein=267mg/L; - Globular volume=43.1% - Hemoglobin=14.9g/dL - Total leukocytes=13,100/band cells=655 (5%) and lymphocytes=917 (7%). - Blood platelets =200.000/mm <sup>3</sup>
<b>Laboratory tests 24 hours before death</b>	- C-Reactive Protein=392.5mg/dL; - Globular volume=26.5% - Hemoglobin=10.7g/dL - Leukocytes=9,800/band cells=686 (7%) and lymphocytes=1470 (15%). - Blood platelets =232.000/mm <sup>3</sup>	- C-Reactive Protein=267.2mg/dL; - Globular volume=27% - Hemoglobin=9g/dL - Leukocytes=15,300/band cells=459 (3%) and lymphocytes=2448 (16%). - Blood platelets =216.000/mm <sup>3</sup>	- C-Reactive Protein=16.3mg/dL; - Globular volume=29.2% - Hemoglobin=9.5g/dL - Leukocytes=28,900/band cells=867 (3%) and lymphocytes=1156 (4%). - Blood platelets =141.000/mm <sup>3</sup>	- C-Reactive Protein=281.6mg/dL; - Globular volume=23.1% - Hemoglobin=7.8g/dL - Leukocytes=15,800/band cells=6004 (38%) and lymphocytes=1264 (8%). - Blood platelets =395.000/mm <sup>3</sup>	- C-Reactive Protein=264.8mg/dL; - Globular volume=19.7% - Hemoglobin=7.7g/dL - Leukocytes=8,400/band cells=1,260 (15%) and lymphocytes=168 (2%). - Blood platelets =58.000/mm <sup>3</sup>	- C-Reactive Protein=226.8mg/dL; - Globular volume=19.7% - Hemoglobin=11g/dL - Leukocytes=19,100/band cells=191 (1%) and lymphocytes=573 (3%). - Blood platelets =336.000/mm <sup>3</sup>
<b>Therapeutic drugs</b>	-Azithromycin 500mg/day for 5 days; -Ceftriaxone 2g/day (choice of this antibiotic according to the protocol for the patient's profile) -Piperacillin + Tazobactam 9mg/day (sepsis therapy) -Prednisone 10mg/day -Enoxaparin 20mg/day (prophylactic dose adjusted - Chronic Kidney Disease)	-Azithromycin 500mg/day for 5 days; -Ceftriaxone 2g/day (choice of this antibiotic according to the protocol for the patient's profile) -Dexamethasone 6mg/day - Enoxaparin 40mg/day - Piperacillin + Tazobactam 18mg/day (sepsis therapy) -Alteplase 100mg intravenous for thrombolysis of pulmonary thromboembolism	-Azithromycin 500mg/day for 5 days; -Ceftriaxone 2g/day (choice of this antibiotic according to the protocol for the patient's profile) -Oseltamivir 150mg/day for 5 days; -Dexamethasone 6mg/day -Enoxaparin 40mg/day - Piperacillin + Tazobactam 18mg/day (sepsis therapy)	-Azithromycin 500mg/day for 5 days; -Ceftriaxone 2g/day (choice of this antibiotic according to the protocol for the patient's profile). -Enoxaparin 40mg/day for 5 days and 180mg/day (full anticoagulation) for 7 days. Prophylactic anticoagulation restarted - dose 40mg/day. -Dexamethasone 6mg/day for 10 days; -Daptomycin 1g/day (treatment of subcutaneous tissue infection) -Hydrocortisone 300mg/day (7 days) – bronchospasm treatment -Meropenem 3g/day (sepsis therapy) -Linezolid 1.2g/day (sepsis therapy) -Polymyxin B 4.000.000UI/day (sepsis therapy)	-Azithromycin 500mg/day for 5 days; -Ceftriaxone 2g/day for 5 days (choice of this antibiotic according to the protocol for the patient's profile) -Dexamethasone 6mg/day for 10 days -Enoxaparin 60mg/day -Clopidogrel 75mg/day -Piperacillin + Tazobactam 18mg/day for 5 days (sepsis therapy) -Oxacilin 12g/day (bacterial endocarditis) -Fluconazol 400mg/day (08 days)	-Azithromycin 500mg/day for 5 days; -Ceftriaxone 2g/day for 5 days (choice of this antibiotic according to the protocol for the patient's profile) -Dexamethasone 6mg/day for 10 days -Enoxaparin 80mg/day (full anticoagulation)

	CASE 21	CASE 23	CASE 28	CASE 29	CASE 30	CASE 31
Gender / Age	Male, 70 years old	Male, 57 years old	Male, 86 years old	Male, 83 years old	Female, 72 years old	Female, 72 years old
Comorbidities	Type 2 Diabetes Mellitus Systemic Arterial Hypertension Atrial Fibrillation Dyslipidemia Class II Obesity Interstitial Pulmonary Fibrosis Previous smoking	Type 2 Diabetes Mellitus Systemic Arterial Hypertension Bronchial Asthma Class III Obesity	Type 2 Diabetes Mellitus Systemic Arterial Hypertension Dyslipidemia Benign Prostatic Hyperplasia	Systemic Arterial Hypertension Coronary Disease Previous smoking	Type 2 Diabetes Mellitus Systemic Arterial Hypertension Dyslipidemia Hypothyroidism	Systemic Arterial Hypertension Humerus fracture fixation surgery (two weeks before admission)
Computed tomography chest at admission	Peripheral, multifocal and bilateral "opacities with ground-glass attenuation" suggest viral pulmonary infection. Interstitial Pulmonary Fibrosis Cardiomegaly	Diffuse and bilateral "opacities with ground-glass attenuation", thickening of the pulmonary septum, suggestive of viral pulmonary infection.	Diffuse and bilateral "opacities with ground-glass attenuation", thickening of the pulmonary septum, suggestive of viral pulmonary infection.	Diffuse and bilateral "opacities with ground-glass attenuation", thickening of the pulmonary septum, suggestive of viral pulmonary infection, with involvement more than 50% of the lung parenchyma.	Diffuse and bilateral "opacities with ground-glass attenuation", thickening of the pulmonary septum, suggestive of viral pulmonary infection, with involvement more than 50% of the lung parenchyma.	Diffuse and bilateral "opacities with ground-glass attenuation", thickening of the pulmonary septum, suggestive of viral pulmonary infection, with involvement more than 50% of the lung parenchyma.
Relevant initial laboratory tests	- C-Reactive Protein=156.9 mg/L; - Globular volume=52.8% - Hemoglobin=18.2g/dL - Total leukocytes=16,000/band cells=160 (1%) and lymphocytes=320 (2%). - Blood platelets =160.000/mm <sup>3</sup>	- C-Reactive Protein=47.8 mg/L; - Globular volume=47.8% - Hemoglobin=17.3g/dL - Total leukocytes=7,800/band cells=234 (3%) and lymphocytes=1,248(16%). - Blood platelets =131.000/mm <sup>3</sup>	- C-Reactive Protein=86 mg/L; - Globular volume=36.9% - Hemoglobin=13.6g/dL - Total leukocytes=5,300/band cells=106 (2%) and lymphocytes=1,060(20%). - Blood platelets =122.000/mm <sup>3</sup>	- C-Reactive Protein=147.25 mg/L; - Globular volume=38% - Hemoglobin=13.8g/dL - Total leukocytes=9,200/band cells=276 (3%) and lymphocytes=184 (2%). - Blood platelets =190.000/mm <sup>3</sup>	- C-Reactive Protein=111.6 mg/L; - Globular volume=34.1% - Hemoglobin=11.7g/dL - Total leukocytes=6,000/band cells=360 (6%) and lymphocytes=1,020 (17%). - Blood platelets =222.000/mm <sup>3</sup>	- C-Reactive Protein=114 mg/L; - Globular volume=30.9% - Hemoglobin=11.6g/dL - Total leukocytes=5,900/band cells=295 (5%) and lymphocytes=472 (8%). - Blood platelets =227.000/mm <sup>3</sup>
Laboratory tests 24 hours before death	- C-Reactive Protein=8.7mg/dL; - Globular volume=32% - Hemoglobin=11.3g/dL - Leukocytes=10,500/band cells=525 (5%) and lymphocytes=420 (4%). - Blood platelets =67.000/mm <sup>3</sup>	-C-Reactive Protein=236.2mg/dL; - Globular volume=26.6% - Hemoglobin=9.3g/dL - Leukocytes=25,000/band cells=4,000 (16%) and lymphocytes=2,000 (8%). - Blood platelets =132.000/mm <sup>3</sup>	- C-Reactive Protein=180mg/dL; - Globular volume=39.5% - Hemoglobin=14.1g/dL - Leukocytes=4,700/band cells=141 (3%) and lymphocytes=282 (6%). - Blood platelets =132.000/mm <sup>3</sup>	- C-Reactive Protein=30.7mg/dL; - Globular volume=38.4% - Hemoglobin=13.4g/dL - Leukocytes=23,300/band cells=2,097 (9%) and lymphocytes=233 (1%). - Blood platelets =436.000/mm <sup>3</sup>	- C-Reactive Protein=339.9mg/dL; - Globular volume=23.7% - Hemoglobin=8.5g/dL - Leukocytes=32,200/band cells=7,084 (22%) and lymphocytes=1,288 (4%). - Blood platelets =190.000/mm <sup>3</sup>	- C-Reactive Protein=53.9mg/dL; - Globular volume=21.2% - Hemoglobin=7.7g/dL - Leukocytes=7,900/band cells=474 (6%) and lymphocytes=474 (6%). - Blood platelets =180.000/mm <sup>3</sup>
Therapeutic drugs	- Due to laboratory coagulation disorders, anticoagulants were not administered. -Ceftriaxone 2g/day (choice of this antibiotic according to the protocol for the patient's profile) - Azithromycin 500mg/day for 5 days; - Tocilizumab 300mg/day for two days; - Methylprednisolone 125mg/day for ten days; - Piperacillin + Tazobactam 18mg/day (sepsis therapy) -Enoxaparin 60mg/day (full anticoagulation) for 12 days. - Anidulafungin 200mg/day (1 day); - Meropenem 3g/day (2 days); - Linezolid 1.2g/day (2 days); - Polymyxin B Sulfate 1.000.000UI (1 day)	-Azithromycin 500mg/day for 5 days; -Ceftriaxone 2g/day (choice of this antibiotic according to the protocol for the patient's profile); - Oseltamivir 150mg/day for 5 days; - Dexamethasone 6mg/day for 5 days; - Enoxaparin 40mg/day; - Enoxaparin 60mg/day a partir de 23/07; - Piperacillin + Tazobactam 18mg/day for 7 days (sepsis therapy); - Hidrocortisona 100mg/day; - Meropenem 3g/day (for 9 days); - Linezolida 1.2g/day (for 9 days); - Sulfato de Polimixina B 3.000.000UI (for 5 days)	Azithromycin 500mg/day for 5 days; -Ceftriaxone 2g/day (choice of this antibiotic according to the protocol for the patient's profile); -Dexamethasone 6mg/day for 5 days; - Enoxaparin 40mg/day; - Methylprednisolone 125mg/day for 03 days	-Azithromycin 500mg/day for 5 days; -Ceftriaxone 2g/day (choice of this antibiotic according to the protocol for the patient's profile); -Dexamethasone 6mg/day for 10 days; - Hydrocortisone 200mg/day; - Enoxaparin 60mg/day for 9 days; - Enoxaparin 160mg/day for seven days; - Cefepime 6g/day - Meropenem 3g/day (2 days); -Ampicillin+Sulbactam 12g/day -Linezolid 1.2g/day (7 days)	-Oseltamivir 150mg/day for 1 day; Dexamethasone 6mg/day for 10 days; - Hydrocortisone 200mg/day 20 days; - Enoxaparin 40mg/day; -Azithromycin 500mg/day for 5 days; -Ceftriaxone 2g/day (choice of this antibiotic according to the protocol for the patient's profile); - Piperacillin + Tazobactam 18mg/day (sepsis therapy) for 8 days - Moxifloxacin 400mg/day 1 day	-Oseltamivir 150mg/day for 1 day; Dexamethasone 6mg/day for 10 days; - Hydrocortisone 200mg/day 13 days; Azithromycin 500mg/day for 5 days; -Ceftriaxone 2g/day (choice of this antibiotic according to the protocol for the patient's profile); - Meropenem 3g/day (10 days); - Polymyxin B Sulfate 1.000.000UI (1 day) -Linezolid 1.2g/day (7 days); - Enoxaparin 40mg/day for 19 days; - Enoxaparin 120mg/day

**Supplementary Table S3:** Allelic frequency analysis between COVID-19 and H1N1 groups for *PRF1* gene.

<b>reference SNP<sup>†</sup> Allele variation [1/2]</b>	<b>Allele 1</b>	<b>Allele 2</b>	<b>MAF*</b>	
<b>rs10999426 [G/A]</b>	G	A	TOPMED	1000G
COVID-19	31 (64.6)	17 (35.4)	A=0.2176	A=0.1404
H1N1	16 (80.0)	4 (20.0)		
<b>rs885821 [G/A]</b>	G	A		
COVID-19	39 (81.3)	9 (18.7)	A=0.1409	A=0.1126
H1N1	16 (80.0)	4 (20.0)		
<b>rs885822 [G/A]</b>	G	A		
COVID-19	21 (56.8)	16 (43.2)	G=0.3267	G=0.3041
H1N1	4 (20.0)	16 (80.0)		
<b>rs35947132 [G/A]</b>	G	A		
COVID-19	44 (91.6)	4 (8.4)	A=0.0291	A=0.0132
H1N1	20 (100.0)	0 (0.0)		

<sup>†</sup>SNP identifier based on NCBI dbSNP; Allele 1=wild; Allele 2=polymorphic; \*MAF=Minimum Allele Frequency from NCBI SNP for TOPMED and 1000G data base; Allele frequency was expressed by absolute number and frequency.