SUPPLEMENTARY MATERIALS

Supplementary Table 1. Additional characteristics of patients with rheumatic diseases (n=65).		
Variables	Levels	n (%)
Rheumatic disease	Inflammatory arthritis	29 (44.6)
	Rheumatoid arthritis	17 (26.1)
	Psoriatic arthritis	5 (7.7)
	Other arthritis*	7 (10.8)
	Connective tissue disease	22 (33.9)
	Systemic sclerosis	6 (9.2)
	Sjogren syndrome	6 (9.2)
	Systemic lupus erythematosus	3 (4.6)
	Systemic vasculitis[§]	5 (7.7)
	Other[+]	2 (3.1)
	Other	14 (21.5)
	Polymyalgia rheumatica	8 (12.4)
	Sarcoidosis	6 (9.2)
At admission		
Glucocorticoids	No	39 (60.0)
	Yes	26 (40.0)
	Prednisone equivalent	
	<7.5 mg/die	17 (26.1)
	≥7.5 mg/die	9 (13.8)
Disease-modifying antirheumatic drugs	No	45 (69.2)
	Yes	20 (30.8)
	Conventional synthetic[#]	19 (29.2)
	Biological or targeted synthetic[°]	1 (1.5)

*One undifferentiated arthritis, four gout; [§]Three ANCA-associated vasculitis, one giant cell arteritis, one urticarial vasculitis; [+]One mixed connective tissue disease, one undifferentiated connective tissue disease; [#]Eight methotrexate, seven hydroxychloroquine, one methotrexate and hydroxychloroquine, one azathioprine, one leflunomide, one tacrolimus; [°]Baricitinib.

Supplementary Table 2. Comparison of rheumatic patients' characteristics at admission between wave 1 and wave 2.

Variables	Wave 1 (n=23)	Wave 2 (n=42)	p value
Gender female, n (%)	18 (78.3)	24 (57.1)	0.152
Age at admission (years), median (IQR)	75.23 (58.71-83.89)	77.24 (67.27-80.48)	0.923
Emergency room stay, n (%)			0.217
Not admitted to emergency room	13 (59.1)	31 (77.5)	
Stayed for 1 day	9 (40.9)	9 (22.5)	
Outcome, n (%)			0.982
Death	7 (30.4)	13 (31.0)	
Discharge	12 (52.2)	21 (50)	
Transferred to other hospital	4 (17.4)	8 (19.0)	
Length of stay (days), median (IQR)	13 (8.5-22)	16 (8-27)	
Admission to ICU, n (%)	3 (13.0)	3 (7.1)	0.736
History of, n (%):			
Asthma	0 (0)	2 (4.8)	0.875
Myocardial infarction	3 (13.0)	7 (16.7)	0.978
Congestive heart failure	4 (17.4)	4 (9.5)	0.597
Peripheral vascular disease	2 (8.7)	4 (9.5)	1
Cerebrovascular accident or transient ischemic attack	3 (13.0)	5 (11.9)	1
Dementia	3 (13.0)	2 (4.8)	0.477
Chronic obstructive pulmonary disease	2 (8.7)	8 (19.0)	0.455
Peptic ulcer disease	1 (4.3)	1 (2.4)	1
Hemiplegia	0 (0)	2 (4.8)	0.755
Liver disease	0 (0)	3 (7.1)	0.488
Moderate to severe chronic kidney disease	4 (17.4)	7 (16.7)	1
Solid tumor	3 (13.0)	10 (23.8)	0.476
AIDS	0 (0)	0 (0)	-
Diabetes	2 (8.7)	13 (31.0)	084
Leukemia	0 (0)	0 (0)	-

Linphoma	0 (0)	1 (2.4)	1
Charlson Comorbidity Index, 0–37 score, median (IQR)	4 (3-7)	5.5 (4-8)	0.248
Charlson Comorbidity Index, estimated 10-year survival, median (IQR)	53 (1-77)	11.5 (0-53)	0.165
Charlson Comorbidity Index, n (%)			0.165
Score 1	0 (0)	1 (2.4)	
Score 2	4 (17.4)	1 (2.4)	
Score 3	3 (13.0)	5 (11.9)	
Score 4	5 (21.7)	6 (14.3)	
Score ≥5	11 (47.8)	29 (69.0)	

ICU, intensive care unit; IQR, interquartile range.

Supplementary Table 3. Characteristics at admission of rheumatic patients and matched controls.

Variables	Rheumatic disease		p value
	No (n=65)	Yes (n=65)	
Gender female, n (%)	42 (64.6)	42 (64.6)	1
Age at admission (years), median (IQR)	75.48 (64.82-81.98)	75.35 (64.76-82.23)	0.987
Wave, n (%)			1
First (21/02-31/05 2020)	23 (35.4)	23 (35.4)	
Second (01/10-31/12 2020)	42 (64.6)	42 (64.6)	
Charlson comorbidity index, n (%)			1
Score 1	1 (1.5)	1 (1.5)	
Score 2	5 (7.7)	5 (7.7)	
Score 3	8 (12.3)	8 (12.3)	
Score 4	11 (16.9)	11 (16.9)	
Score ≥5	40 (61.5)	40 (61.5)	

IQR, interquartile range.

Supplementary Figure 1. Flow chart of patients' selection.