

Supplemental Table I. Characteristics of heart failure patients admitted with COVID-19

	HFpEF	HFrfEF	p
	n=221	n=114	
Demographics			
Age, year	74 (65 - 83)	73 (65.8 - 79.3)	0.256
Male gender, no (%)	113/221 (51.1)	77/114 (67.5)	0.004
BMI (kg/m ²)	28.4 (24.6 - 33.8)	26.7 (23 - 31.2)	0.017
Past Medical History			
Diabetes, no (%)	162/221 (73.3)	85/114 (74.6)	0.804
Hypertension, no (%)	203/221 (91.9)	105/114 (92.1)	0.937
CAD, no (%)	158/221 (71.5)	91/114 (79.8)	0.098
Asthma/COPD, no (%)	130/221 (58.8)	46/114 (40.4)	0.001
Presentation			
Symptom duration, days	2 (0 - 7)	2 (0 - 7)	0.294
Temperature, F	98.8 (98 - 100)	98.5 (97.8 - 99.7)	0.041
Systolic BP, mmHg	134 (116 - 149)	127 (104 - 144)	0.015
Diastolic BP, mmHg	73 (61 - 82)	72 (58.5 - 81.5)	0.757
HR, bpm	93 (80 - 106.5)	90 (74 - 106)	0.129
Pulse oximeter saturation, %	95 (91 - 98)	96 (92 - 99)	0.187
Respiratory rate, bpm	20 (18 - 24)	20 (18 - 24)	0.425
WBC count, k/ μ L	7.3 (5.3 - 10.6)	7.9 (5.4 - 10.2)	0.662
Lymphocytes count, k/ μ L	1 (0.7 - 1.3)	1 (0.6 - 1.4)	0.8
Hemoglobin, g/dL	12.1 (10.2 - 13.9)	11.6 (10.2 - 13.4)	0.319
Platelet count, k/ μ L	170 (118 - 242.5)	169 (91 - 244)	0.83
Sodium, mEq/L	137 (133 - 142)	138 (135 - 141)	0.845
Potassium, mEq/L	4.6 (4.1 - 4.9)	4.6 (4.2 - 5.1)	0.397
Chloride, mEq/L	99 (95 - 104)	99 (95 - 103)	0.68
Bicarbonate, mEq/L	25 (21 - 28)	24 (21 - 27)	0.403
EGFR, mL/min/BSA	40.9 (23.7 - 62.5)	40.2 (20.1 - 56.9)	0.275
AST, U/L	36 (25.3 - 56)	36 (24 - 61.5)	0.857
ALT, U/L	22 (14 - 36)	25 (14 - 35.5)	0.369
Lactic acid, mmol/L	2.2 (1.6 - 2.9)	2.4 (1.7 - 3.7)	-0.044
Creatinine Kinase, U/L	151 (74.8 - 334.3)	148 (77.3 - 366.8)	0.919
ProBNP, pg/mL	2328 (877.5 - 5411.5)	5416 (1371.5 - 15000)	0.001
D-dimer, μ g/mL	2.1 (1.1 - 5)	3.3 (1.4 - 7.6)	0.19
C-reactive protein, μ g/mL	10 (3.5 - 21.3)	10.3 (6 - 22.3)	0.397
LDH, U/L	379 (280 - 556)	412 (303 - 570)	0.415
Ferritin, ng/mL	620 (329.3 - 1308)	593 (241 - 1027.8)	0.449
IL6, pg/mL	42.3 (18.9 - 110.5)	39 (17.7 - 89.1)	0.624
Procalcitonin, ng/mL	0.3 (0.1 - 0.9)	0.4 (0.1 - 1.6)	0.729
Troponin T, ng/mL	0.02 (0.01 - 0.06)	0.04 (0.01 - 0.1)	0.006
Treatments during admission			
Beta Blocker	129/221 (58.4)	76/114 (66.7)	0.140
ACE-i	22/221 (10.0)	19/114 (16.7)	0.076
ARBs	15/221 (6.8)	7/114 (6.1)	0.821
Pressors, no (%)	49/221 (22.2)	25/114 (21.9)	0.960
Inotropes, no (%)	3/221 (1.4)	11/114 (9.6)	0.000
Hydroxychloroquine, no (%)	141/221 (63.8)	62/114 (54.4)	0.095
Chloroquine, no (%)	3/221 (1.4)	3/114 (2.6)	0.405
Azithromycin, no (%)	59/221 (26.7)	25/114 (21.9)	0.34
Other antibiotics, no (%)	172/221 (77.8)	90/114 (78.9)	0.814
IV steroids, no (%)	61/221 (27.6)	17/114 (14.9)	0.009

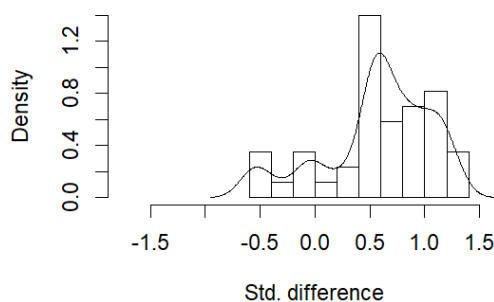
ACE-I = Angiotensin converting enzyme inhibitor; ALT= Alanine transaminase; ARBs = Angiotensin II receptor blocker; BMI = Body mass index; BP = Blood pressure; CAD = Coronary artery disease; COPD = Chronic obstructive pulmonary disease; EGFR = Estimated glomerular filtration rate; F= Fahrenheit; G6PD = Glucose-6-phosphate dehydrogenase deficiency; HFpEF = Heart failure with preserved ejection fraction; HFrEF = Heart failure with reduced ejection fraction; HR = Heart rate; IL-6 = Interleukin 6; IV= Intravenous; LDH = Lactate dehydrogenase; proBNP = ProB-type Natriuretic Peptide; WBC = White blood cell.

Supplemental Table II. Demographics and past medical history of propensity matched patients

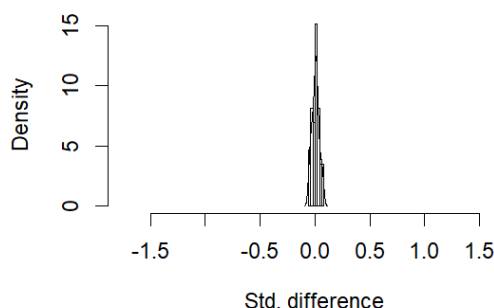
	Without Heart Failure n=328	With Heart Failure n=328	P
Demographics			
Age, year	73 (65 - 80)	73 (65 - 81)	0.36
BMI (kg/m ²)	28.8 (25 - 33)	28 (24.1 - 33)	0.39
Past Medical History			
Diabetes, no (%)	250/328 (76.2)	243/328 (74.1)	0.53
Hypertension, no (%)	301/328 (91.8)	302/328 (92.1)	0.89
CAD, no (%)	243/328 (74.1)	244/328 (74.4)	0.93
Asthma/COPD, no (%)	175/328 (53.4)	173/328 (52.7)	0.88

BMI = Body mass index; CAD = Coronary artery disease; COPD = Chronic obstructive pulmonary disease.

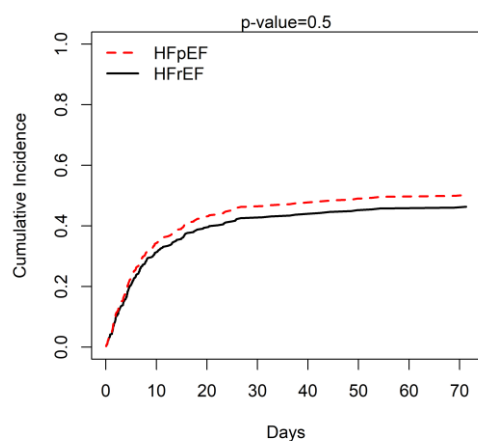
Standardized differences before matching



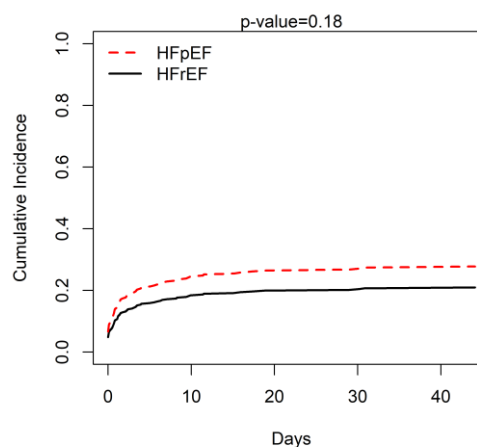
Standardized differences after matching



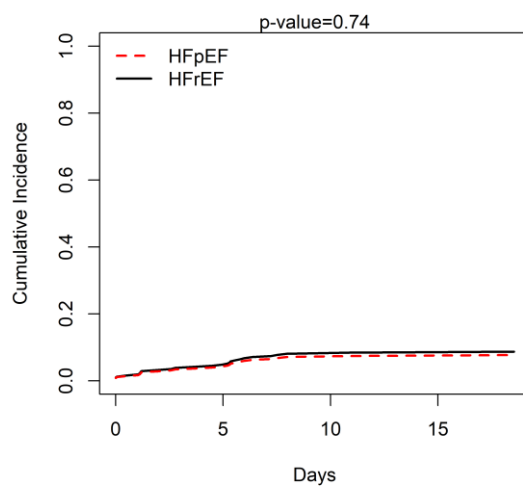
Supplemental Figure I. Standardized differences of covariates before and after propensity matching score.



(A) Mortality



(B) Intubation



(C) New Dialysis

Supplemental Figure II. Cumulative incidence of in-hospital (A) mortality, (B) need for intubation, (C) need for intubation in heart failure with reduced ejection fraction (HFrEF) and heart failure with preserved ejection fraction (HFpEF) patients.