SUPPLEMENTAL MATERIAL

Table S1. Characteristics of Patients with an NT-proBNP and those Without an NT-proBNP or BNP value on Admission.

Demographics % (n) or Median$(Q_1 - Q_3)$	**Patients Without NT-proBNP or BNP** $(n = 13{,}039)$	**Patients with NT-proBNP** $(n = 4{,}675)$	**p-value**
Male	53.2% (6,941)	54.8% (2563)	0.064
Age (years)	60.0 (45.0 – 73.0)	66.0 (54.0 – 77.0)	<0.001
BMI (kg/m^2)	29.1 (24.5 – 34.5)	29.5 (25.2 – 35.1)	0.012
CKD	10.8% (1,412)	16.2% (756)	<0.001
Diabetes	32.3% (4,215)	40.1% (1875)	<0.001
Heart failure	7.3% (947)	18.1% (846)	<0.001
HTN	53.7% (7,008)	66.3% (3098)	<0.001
CABG/PCI/MI	8.0% (1,049)	12.8% (600)	<0.001
Presenting Labs			
NT-proBNP (pg/mL)	*N/A*	299 (74.6 – 1608.0)	*N/A*
Creatinine (mg/dL)	0.99 (0.77 – 1.37)	1.1 (0.80 – 1.60)	<0.001
Troponin (ng/L)	10.0 (0.0 – 30.0)	20.0 (10.0 – 60.0)	<0.001
CRP (mg/L)	51.7 (12.7 – 77.3)	72.1 (21.0 – 135.5)	<0.001
Ferritin (ng/ml)	547 (239 – 1121)	586 (270 – 1169)	0.011
D-Dimer (ng/ml)	790 (395 – 1,504)	1992 (420 – 1930)	<0.001
Procalcitonin (ng/ml)	0.14 (0.07 – 0.36)	0.17 (0.08 – 0.52)	<0.001

BMI: body mass index (kg/m^2), CKD: chronic kidney disease, HTN: hypertension, CABG: coronary artery bypass graft, PCI: percutaneous intervention such as coronary stenting, MI: myocardial infarction, CRP: C-reactive protein.

Table S2. Outcomes for Patients without Heart Failure Stratified by NT-proBNP.

Patients Without Heart Failure % (n) or Median $(Q_1 - Q_3)$	**Normal NT-pro-BNP** $(n = 3{,}030)$	**Elevated NT-pro-BNP** $(n = 799)$	**p-value**
In-Hospital Mortality	16.1% (488)	38.0% (304)	<0.001
MACE	19.7% (598)	47.2% (377)	<0.001
Intubation	21.1% (640)	36.4% (291)	<0.001
ICU Admission	33.1% (1002)	51.6% (412)	<0.001
Shock	10.1% (307)	22.2% (177)	<0.001
Cardiac Arrest	5.5% (166)	11.9% (95)	<0.001
Time to Death (days)	9.0 (5.0 – 16.0)	8.0 (3.0 – 16.0)	0.021

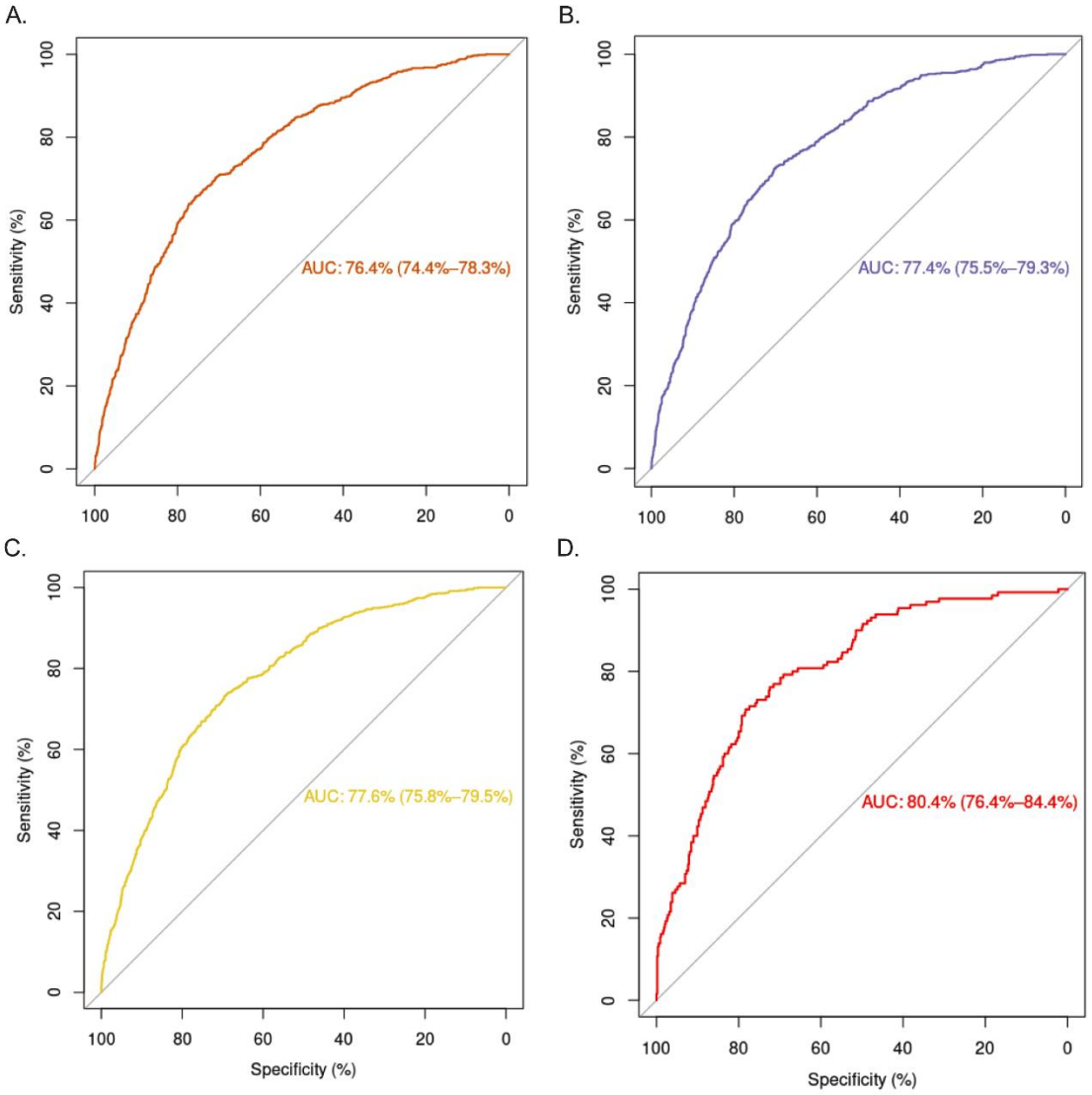
MACE: Major adverse cardiac events as defined as death, acute myocardial infarction, stroke, shock, new onset heart failure, or myocarditis, ICU: intensive care unit.

Table S3. Univariable Logistical Regression Model for Patient Characteristics Predicting In-Hospital Mortality.

In-Hospital Mortality	***Univariable Logistical Regression***		
	OR	p-value	95% CI
Male	1.24	0.003	1.08 – 1.43
Age (per 10 years)	1.51	<0.001	1.43 – 1.58
BMI (kg/m^2)	0.98	<0.001	0.97 – 0.99
Diabetes	1.23	0.004	1.07 – 1.41
Heart Failure	1.56	<0.001	1.32 – 1.85
Hypertension	1.55	<0.001	1.33 – 1.81
Creatinine (mg/dL)	1.12	<0.001	1.09 – 1.15
Elevated NT-pro-BNP	2.98	<0.001	2.58 – 3.45
Heart Rate (bpm)	1.01	<0.001	1.00 – 1.01
Systolic Blood Pressure (mmHg)	0.99	<0.001	0.99 – 1.00
Diastolic Blood Pressure (mmHg)	0.98	<0.001	0.98 – 0.99
Respiration Rate (per minute)	1.04	<0.001	1.03 – 1.05
Need for Supplemental Oxygen	2.30	<0.001	1.96 – 2.71

BMI: body mass index, CKD: chronic kidney disease, Heart Failure: previous diagnosis of heart failure, bpm: beats per minute, mmHg: millimeters of mercury. Univariable logistical regression model for individual factors influencing the odds ratio (OR) for in-hospital mortality, comparing Elevated to Normal NT-proBNP values, with 95% confidence interval (CI).

Figure S1. Receiver Operator Characteristic Curves for Regression Models.



Receiver operator characteristic curves with the area under the curve (AUC) for multivariable logistical regression models with adjustments for age, BMI, sex, creatinine (mg/dL) and history of atrial fibrillation, chronic kidney disease, diabetes, hypertension, and previous heart failure diagnosis, in addition to presenting vital signs (heart rate, systolic and diastolic blood pressure, respiratory rate and need for supplemental oxygen). A. The model with elevated age-adjusted NT-proBNP levels: AUC of 0.764 (95% CI: 0.744 – 0.783) with a sensitivity of 65.80% and specificity of 75.51% (AUC without NT-proBNP: 0.749). B. The model with NT-proBNP in quintiles: AUC of 0.774 (95% CI: 0.755 – 0.793) with a sensitivity of 72.90% and specificity of 69.83% (AUC without NT-proBNP: 0.749). C. The model with log NT-proBNP: AUC of 0.776 (95% CI: 0.758 – 0.795) with a sensitivity of 73.33% and specificity of 69.43% (AUC without NT-proBNP: 0.749). D. The comprehensive model with log NT-proBNP and other biomarkers D-dimer (ng/ml), CRP (mg/L), procalcitonin (ng/ml), and troponin (ng/L): AUC of 0.804 (95% CI: 0.764 – 0.844) with a sensitivity of 70.77% and specificity of 78.31% (AUC without NT-proBNP: 0.789).