

**e-Table 1: Definitions of Cardiovascular Diagnostics and Therapeutics**

<b>Cardiovascular Diagnostics</b>	<b>Testing</b>	<b>Description</b>
Serial troponin I	Troponin I	<ul style="list-style-type: none"> <li>At least one additional troponin I measured within 7 days of the first elevated troponin I measurement</li> </ul>
Trend troponin I to peak	Troponin I	<ul style="list-style-type: none"> <li>At least one additional troponin I measured within 7 days of the maximum elevated troponin I measurement</li> </ul>
Echocardiography	Transthoracic echocardiography, Transesophageal echocardiography	<ul style="list-style-type: none"> <li>Performed within 7 days of the first elevated troponin I measurement</li> </ul>
Cardiac stress test	Electrocardiogram stress test, Echocardiogram stress test (exercise/pharmacological), Nuclear medicine stress test (exercise/pharmacological)	<ul style="list-style-type: none"> <li>Performed within 7 days of the first elevated troponin I measurement</li> </ul>
Cardiac Catheterization	Right heart catheterization, Left heart catheterization	<ul style="list-style-type: none"> <li>Performed within 7 days of the first elevated troponin I measurement</li> </ul>
<b>Cardiovascular Therapeutics</b>	<b>Medications</b>	<b>Description</b>
Antiplatelet agents	Abciximab, Aspirin, Clopidogrel, Eptifibatide, Prasugrel, Ticagrelor, Ticlopidine, Tirofiban	<ul style="list-style-type: none"> <li>Receipt within 7 days of the first elevated troponin I measurement</li> </ul>
Therapeutic anticoagulation	Bivalrudin, Dalteparin, Enoxaparin, Fondaparinux, Heparin drip	<ul style="list-style-type: none"> <li>Receipt within 1 day of the first elevated troponin I measurement</li> <li>Anticoagulant medications doses greater than venous thromboembolism prophylactic doses were as follows: intravenous heparin dose &gt;20,000 units daily, subcutaneous enoxaparin twice daily dosing (with daily dose greater than 80mg), subcutaneous dalteparin &gt;5000 IU daily, and fondaparinux &gt;2.5mg daily.</li> </ul>
Beta-blockers	Carvedilol, Esmolol, Metoprolol	<ul style="list-style-type: none"> <li>Receipt within 7 days of the first elevated troponin I measurement</li> </ul>
Statins	Atorvastatin, Cerivastatin, Fluvastatin, Lovastatin, Pitavastatin, Pravastatin, Rosuvastatin, Simvastatin	<ul style="list-style-type: none"> <li>Receipt within 7 days of the first elevated troponin I measurement</li> </ul>

<sup>a</sup>Abbreviations: IU=International units; mg=milligrams

**e-Table 2: Definitions of Cardiovascular Disease History and Cardiovascular Disease Equivalents**

<b>Cardiovascular Disease Subgroups</b>	<b>Medical Comorbidity</b>	<b><i>International Classification of Diseases 10<sup>th</sup> Revision (ICD-10)</i></b>
Cardiovascular Disease	Myocardial Infarction	I21.x, I22.x, I25.2
	Congestive Heart Failure	I09.9, I11.0, I13.0, I13.2, I25.5, I42.0, I42.5-I42.9, I43.x, I50.x, P29.0
	Cardiac Arrhythmia	I44.1-I44.3, I45.6, I45.9, I47.x-I49.x, ROO.O, ROO.1, ROO.8, T82.1, Z45.0, Z95.0
	Peripheral Vascular Disease	I70.x, I71.x, I73.1, I73.8, I73.9, I77.1, I79.0, I79.2, K55.1, K55.8, K55.9, Z95.8, Z95.9
	Cerebrovascular Disease	G45.x, G46.x, H34.0, I60.x-I69.x
	Pulmonary Circulation Disease	I26.x, I27.x, I28.0, I28.8, I28.9
Cardiovascular Disease and Cardiovascular Disease Equivalents	Cardiovascular Disease	Defined above
	Diabetes Mellitus	E10.0-E10.9, E11.0, E11.1, E11.9, E12.0-E12.9, E13.0-E13.9, E14.0-E14.9
	Chronic Kidney Disease	I12.0, I13.1, N18.x, N19.x, N25.0, Z49.0-Z49.2, Z94.0, Z199.2

<sup>a</sup>Comorbidities identified as present on admission

**e-Table 3: Baseline characteristics of critically ill adults with sepsis and elevated troponin I stratified by cardiovascular disease history**

Characteristics	Sepsis and Elevated Troponin I Cohort	Cardiovascular Disease	No Prior Cardiovascular Disease	Cardiovascular Disease or Cardiovascular Disease Equivalents	No Prior Cardiovascular Disease or Cardiovascular Disease Equivalents
Total N (%)	27,665 (100)	21,974 (79.4)	5,691 (20.6)	24,816 (89.7)	2,849 (10.3)
<b>Admission Year, n (%)</b>					
2016	2,620 (9.5)	2,001 (9.1)	619 (10.9)	2,313 (9.3)	307 (10.8)
2017	5,636 (20.4)	4,429 (20.2)	1,207 (21.2)	5,021 (20.2)	615 (21.6)
2018	7,100 (25.7)	5,645 (25.7)	1,455 (25.6)	6,360 (25.6)	740 (26.0)
2019	7,982 (28.9)	6,439 (29.3)	1,543 (27.1)	7,240 (29.2)	742 (26.0)
2020	4,327 (15.6)	3,460 (15.7)	867 (15.2)	3,882 (15.6)	445 (15.6)
<b>PATIENT-LEVEL CHARACTERISTICS</b>					
<b>Age (years), median (IQR)</b>	69 (59, 78)	70 (61, 79)	63 (53, 73)	70 (60, 79)	61 (49, 71)
<b>Sex (Female), n (%)</b>	12,530 (45.3)	9,851 (44.8)	2,679 (47.1)	11,212 (45.2)	1,318 (46.3)
<b>Race, n (%)</b>					
White	21,852 (79.0)	17,385 (79.1)	4,467 (78.5)	19,503 (78.6)	2,349 (82.5)
Black	4,017 (14.5)	3,187 (14.5)	830 (14.6)	3,708 (14.9)	309 (10.8)
Other	1,796 (6.5)	1,402 (6.4)	394 (6.9)	1,605 (6.5)	191 (6.7)
<b>Ethnicity (Hispanic), n (%)</b>	1,571 (5.7)	1,169 (5.3)	402 (7.1)	1,426 (5.7)	145 (5.1)
<b>Medical Comorbidities, n (%)</b>					
Myocardial Infarction	7,104 (25.7)	7,104 (32.3)	0 (0.0)	7,104 (28.6)	0 (0.0)
Congestive Heart Failure	14,594 (52.8)	14,594 (66.4)	0 (0.0)	14,594 (58.8)	0 (0.0)
Cardiac Arrhythmia	12,080 (43.7)	12,080 (55.0)	0 (0.0)	12,080 (48.7)	0 (0.0)
Peripheral Vascular Disease	2,971 (10.7)	2,971 (13.5)	0 (0.0)	2,971 (12.0)	0 (0.0)
Cerebrovascular Disease	1,840 (6.7)	1,840 (8.4)	0 (0.0)	1,840 (7.4)	0 (0.0)
Pulmonary Circulation Disease	4,318 (15.6)	4,318 (19.7)	0 (0.0)	4,318 (17.4)	0 (0.0)
Diabetes Mellitus	12,815 (46.3)	10,599 (48.2)	2,216 (38.9)	12,815 (51.6)	0 (0.0)
Chronic Kidney Disease	11,445 (41.4)	9,909 (45.1)	1,536 (27.0)	11,445 (46.1)	0 (0.0)
Hypertension	21,743 (78.6)	18,020 (82.0)	3,723 (65.4)	20,327 (81.9)	1,416 (49.7)
Chronic Pulmonary Disease	11,449 (41.4)	9,667 (44.0)	1,782 (31.3)	10,527 (42.4)	922 (32.4)
Liver Disease	4,505 (16.3)	3,429 (15.6)	1,076 (18.9)	3,892 (15.7)	613 (21.5)
<b>Organ Support Therapies, n (%)</b>					
Vasopressors	12,010 (43.4)	9,384 (42.7)	2,626 (46.1)	10,601 (42.7)	1,409 (49.5)
Invasive Mechanical Ventilation	12,802 (46.3)	10,144 (46.2)	2,658 (46.7)	11,316 (45.6)	1,486 (52.2)
Hospital Dialysis	1,572 (5.7)	1,272 (5.8)	300 (5.3)	1,501 (6.0)	71 (2.5)

<b>Maximum Admission SOFA Score, median (IQR)</b>	4 (2, 6)	4 (2, 6)	4 (2, 6)	4 (2, 6)	4 (2, 6)
<b>FACILITY-LEVEL CHARACTERISTICS</b>					
<b>Hospital Community Type, n (%)</b>					
Rural	3,321 (12.0)	2,724 (12.4)	597 (10.5)	3,062 (12.3)	259 (9.1)
Urban	24,344 (88.0)	19,250 (87.6)	5,094 (89.5)	21,754 (87.7)	2,590 (90.9)
<b>Teaching Status, n (%)</b>					
Community Hospital	14,058 (50.8)	11,053 (50.3)	3,005 (52.8)	12,556 (50.6)	1,502 (52.7)
Academic Hospital	13,607 (49.2)	10,921 (49.7)	2,686 (47.2)	12,260 (49.4)	1,347 (47.3)
<b>Hospital Beds, n (%)</b>					
≥ 500	9,557 (34.5)	7,695 (35.0)	1,862 (32.7)	8,680 (35.0)	598 (21.0)
200-499	12,383 (44.8)	9,724 (44.3)	2,659 (46.7)	11,009 (44.4)	1,374 (48.2)
< 200	5,725 (20.7)	4,555 (20.7)	1,170 (20.6)	5,127 (20.7)	877 (30.8)
<b>Geographic Region, n (%)</b>					
South	17,783 (64.3)	13,965 (63.6)	3,818 (67.1)	15,888 (64.0)	1,895 (66.5)
Northeast	2,168 (7.8)	1,718 (7.8)	450 (7.9)	1,926 (7.8)	242 (8.5)
Midwest	7,633 (27.6)	6,222 (28.3)	1,411 (24.8)	6,927 (27.9)	706 (24.8)
West	81 (0.3)	69 (0.3)	12 (0.2)	75 (0.3)	6 (0.2)

<sup>a</sup>Abbreviations: IQR=Interquartile range; SOFA=Sequential organ failure assessment

**e-Table 4: Cohort characteristics of critically ill adults with sepsis and elevated troponin I stratified by receipt of cardiovascular diagnostic testing**

Characteristics	Cardiovascular Diagnostic Testing				
	Serial Troponin I	Trend Troponin I to Peak	Echocardiography	Cardiac Stress Test	Cardiac Catheterization
<b>Total N (%)</b>	23,447 (84.8)	18,255 (66.0)	18,455 (66.7)	1,128 (4.1)	1,829 (6.6)
<b>First Elevated Troponin I Level, median (IQR)</b>	0.16 (0.07, 0.54)	0.18 (0.08, 0.62)	0.18 (0.08, 0.65)	0.24 (0.10, 0.93)	0.49 (0.13, 2.54)
<b>Maximum Troponin I Level, median (IQR)</b>	0.37 (0.12, 1.71)	0.38 (0.12, 1.77)	0.44 (0.13, 2.14)	0.72 (0.19, 2.86)	3.36 (0.62, 12.80)
<b>Admission Year, n (%)</b>					
2016	2,191 (9.3)	1,633 (8.9)	1,797 (9.7)	131 (11.6)	175 (9.6)
2017	4,704 (20.1)	3,726 (20.4)	3,625 (19.6)	248 (22.0)	358 (19.6)
2018	6,007 (25.6)	4,628 (25.4)	4,758 (25.8)	293 (26.0)	516 (28.2)
2019	6,836 (29.2)	5,369 (29.4)	5,428 (29.4)	310 (27.5)	536 (29.3)
2020	3,709 (15.8)	2,899 (15.9)	2,847 (15.4)	146 (12.9)	244 (13.3)
<b>PATIENT-LEVEL CHARACTERISTICS</b>					
<b>Age (years), median (IQR)</b>	69 (59, 78)	69 (59, 78)	69 (59, 78)	67 (58, 76)	67 (59, 75)
<b>Sex (Female), n (%)</b>	10,606 (45.2)	8,382 (45.9)	8,264 (44.8)	514 (45.6)	770 (42.1)
<b>Race, n (%)</b>					
White	18,500 (78.9)	14,439 (79.1)	14,590 (79.1)	750 (66.5)	1,482 (81.0)
Black	3,426 (14.6)	2,613 (14.3)	2,749 (14.9)	180 (16.0)	199 (10.9)
Other	1,521 (6.5)	1,203 (6.6)	1,116 (6.0)	198 (17.6)	148 (8.1)
<b>Ethnicity (Hispanic), n (%)</b>	1,299 (5.5)	987 (5.4)	1,064 (5.8)	59 (5.2)	100 (5.5)
<b>Medical Comorbidities, n (%)</b>					
Myocardial Infarction	6,795 (29.0)	5,463 (29.9)	5,787 (31.4)	422 (37.4)	1,202 (65.7)
Congestive Heart Failure	12,638 (53.9)	9,774 (53.5)	10,351 (56.1)	663 (58.8)	1,366 (74.7)
Cardiac Arrhythmia	10,256 (43.7)	7,887 (43.2)	8,321 (45.1)	447 (39.6)	869 (47.5)
Peripheral Vascular Disease	2,567 (10.9)	1,963 (10.8)	1,977 (10.7)	128 (11.3)	237 (13.0)
Cerebrovascular Disease	1,601 (6.8)	1,241 (6.8)	1,386 (7.5)	83 (7.4)	109 (6.0)
Pulmonary Circulation Disease	3,759 (16.0)	2,909 (15.9)	3,218 (17.4)	182 (16.1)	288 (15.7)
Diabetes Mellitus	10,877 (46.4)	8,299 (45.5)	8,450 (45.8)	555 (49.2)	939 (51.3)
Chronic Kidney Disease	9,685 (41.3)	7,307 (40.0)	7,568 (41.0)	485 (43.0)	685 (37.5)

Hypertension	18,458 (78.7)	14,297 (78.3)	14,380 (77.9)	904 (80.1)	1,500 (82.0)
Chronic Pulmonary Disease	9,772 (41.7)	7,739 (42.4)	7,453 (40.4)	442 (39.2)	730 (39.9)
Liver Disease	3,831 (16.3)	2,895 (15.9)	3,106 (16.8)	182 (16.1)	242 (13.2)
<b>Organ Support Therapies, n (%)</b>					
Vasopressors	10,030 (42.8)	7,642 (41.9)	8,080 (43.8)	405 (35.9)	751 (41.1)
Invasive Mechanical Ventilation	10,956 (46.7)	8,536 (46.8)	8,823 (47.8)	434 (38.5)	945 (51.7)
Dialysis	1,253 (5.3)	880 (4.8)	957 (5.2)	81 (7.2)	87 (4.8)
<b>Maximum Admission SOFA Score, median (IQR)</b>	4 (2, 6)	4 (2, 6)	4 (2, 6)	3 (2, 5)	4 (2, 6)
<b>FACILITY-LEVEL CHARACTERISTICS</b>					
<b>Hospital Community Type, n (%)</b>					
Rural	2,798 (11.9)	2,153 (11.8)	2,199 (11.9)	70 (6.2)	218 (11.9)
Urban	20,649 (88.1)	16,102 (88.2)	16,256 (88.1)	1,058 (93.8)	1,611 (88.1)
<b>Teaching Status, n (%)</b>					
Community Hospital	11,788 (50.3)	8,756 (47.9)	9,700 (52.6)	477 (42.3)	846 (46.3)
Academic Hospital	11,659 (49.7)	9,509 (52.1)	8,755 (47.4)	651 (57.7)	983 (53.7)
<b>Hospital Beds, n (%)</b>					
≥ 500	8,133 (34.7)	6,485 (35.5)	6,713 (36.4)	426 (37.8)	690 (37.7)
200-499	10,326 (44.0)	7,832 (42.9)	7,820 (42.4)	541 (48.0)	864 (47.2)
< 200	4,988 (21.3)	3,938 (21.6)	3,922 (21.3)	161 (14.3)	275 (15.0)
<b>Geographic Region, n (%)</b>					
South	14,915 (63.6)	11,032 (60.4)	11,450 (62.0)	597 (52.9)	1,193 (65.2)
Northeast	1,932 (8.2)	1,743 (9.5)	1,634 (8.9)	83 (7.4)	192 (10.5)
Midwest	6,530 (27.9)	5,422 (29.7)	5,320 (28.8)	448 (39.7)	439 (24.0)
West	70 (0.3)	58 (0.3)	51 (0.3)	0 (0.0)	5 (0.3)

<sup>a</sup>Abbreviations: IQR=Interquartile range; SOFA=Sequential organ failure assessment

**e-Table 5: Cohort characteristics of critically ill adults with sepsis and elevated troponin I stratified by receipt of cardiovascular therapeutics**

Characteristics	Cardiovascular Therapeutics			
	Antiplatelet Agents	Therapeutic Anticoagulation	Beta-Blockers	Statins
<b>Total N (%)</b>	13,349 (48.3)	2,293 (8.3)	13,967 (50.5)	10,541 (38.1)
<b>First Elevated Troponin I Level, median (IQR)</b>	0.19 (0.08, 0.76)	0.33 (0.09, 1.66)	0.16 (0.07, 0.58)	0.17 (0.07, 0.68)
<b>Maximum Troponin I Level, median (IQR)</b>	0.50 (0.13, 2.73)	1.20 (0.21, 6.40)	0.36 (0.11, 1.93)	0.41 (0.11, 2.42)
<b>Admission Year, n (%)</b>				
2016	1,332 (10.0)	146 (6.4)	1,306 (9.4)	963 (9.1)
2017	2,807 (21.0)	466 (20.3)	2,894 (20.7)	2,101 (19.9)
2018	3,545 (26.6)	648 (28.3)	3,675 (26.3)	2,750 (26.1)
2019	3,750 (28.1)	672 (29.3)	4,006 (28.7)	3,096 (29.4)
2020	1,915 (14.3)	362 (15.8)	2,086 (14.9)	1,631 (15.5)
<b>PATIENT-LEVEL CHARACTERISTICS</b>				
<b>Age (years), median (IQR)</b>	70 (61, 79)	68 (59, 76)	70 (61, 79)	71 (63, 79)
<b>Sex (Female), n (%)</b>	5,882 (44.1)	995 (43.4)	6,234 (44.6)	4,623 (43.9)
<b>Race, n (%)</b>				
White	10,794 (80.9)	1,788 (78.0)	11,121 (79.6)	8,421 (79.9)
Black	1,829 (13.7)	279 (12.2)	1,993 (14.3)	1,439 (13.7)
Other	726 (5.4)	226 (9.9)	853 (6.1)	681 (6.5)
<b>Ethnicity (Hispanic), n (%)</b>	682 (5.1)	44 (1.9)	711 (5.1)	513 (4.9)
<b>Medical Comorbidities, n (%)</b>				
Myocardial Infarction	4,974 (37.3)	1,144 (49.9)	4,526 (32.4)	3,875 (36.8)
Congestive Heart Failure	8,390 (62.9)	1,397 (60.9)	8,837 (63.3)	6,762 (64.1)
Cardiac Arrhythmia	6,083 (45.6)	1,019 (44.4)	7,010 (50.2)	4,914 (46.6)
Peripheral Vascular Disease	1,641 (12.3)	264 (11.5)	1,677 (12.0)	1,396 (13.2)
Cerebrovascular Disease	1,034 (7.7)	149 (6.5)	1,047 (7.5)	924 (8.8)
Pulmonary Circulation Disease	2,215 (16.6)	457 (19.9)	2,223 (15.9)	1,752 (16.6)
Diabetes Mellitus	6,964 (52.2)	1,130 (49.3)	7,017 (50.2)	5,985 (56.8)
Chronic Kidney Disease	6,103 (45.7)	892 (38.9)	6,321 (45.3)	5,135 (48.7)

Hypertension	11,195 (83.9)	1,852 (80.8)	11,933 (85.4)	9,164 (86.9)
Chronic Pulmonary Disease	5,960 (44.6)	995 (43.4)	6,108 (43.7)	4,790 (45.4)
Liver Disease	1,678 (12.6)	329 (14.3)	1,904 (13.6)	987 (9.4)
<b>Organ Support Therapies, n (%)</b>				
Vasopressors	5,087 (38.1)	957 (41.7)	4,901 (35.1)	3,861 (36.6)
Invasive Mechanical Ventilation	5,636 (42.2)	1,099 (47.9)	6,156 (44.1)	4,340 (41.2)
Dialysis	633 (4.7)	108 (4.7)	697 (5.0)	495 (4.7)
<b>Maximum Admission SOFA Score, median (IQR)</b>	4 (2, 5)	4 (2, 5)	4 (2, 5)	4 (2, 5)
<b>Hospital Mortality, n (%)</b>	1,810 (13.6)	419 (18.3)	1,847 (13.2)	1,286 (12.2)
<b>FACILITY-LEVEL CHARACTERISTICS</b>				
<b>Hospital Community Type, n (%)</b>				
Rural	1,746 (13.1)	191 (8.3)	1,834 (13.1)	1,358 (12.9)
Urban	11,603 (86.9)	2,102 (91.7)	12,133 (86.9)	9,183 (87.1)
<b>Teaching Status, n (%)</b>				
Community Hospital	6,989 (52.4)	1,024 (44.7)	7,213 (51.6)	5,225 (49.6)
Academic Hospital	6,360 (47.6)	1,269 (55.3)	6,754 (48.4)	5,316 (50.4)
<b>Hospital Beds, n (%)</b>				
≥ 500	4,381 (32.8)	463 (20.2)	4,651 (33.3)	3,441 (32.6)
200-499	5,857 (43.9)	1,342 (58.5)	6,260 (44.8)	4,763 (45.2)
< 200	3,111 (23.3)	488 (21.3)	3,056 (21.9)	2,337 (22.2)
<b>Geographic Region, n (%)</b>				
South	8,559 (64.1)	1,559 (68.0)	9,064 (64.9)	6,507 (61.7)
Northeast	1,037 (7.8)	8 (0.3)	1,055 (7.6)	879 (8.3)
Midwest	3,722 (27.9)	726 (31.7)	3,815 (27.3)	3,128 (29.7)
West	31 (0.2)	0 (0.0)	33 (0.2)	27 (0.3)

<sup>a</sup>Abbreviations: IQR=Interquartile range; SOFA=Sequential organ failure assessment



**e-Table 6: Multivariable adjusted odds of troponin I measurement among critically ill adults with sepsis**

<b>Characteristics</b>	<b>Total Sepsis Cohort (N=27665) OR (95% CI)</b>
<b>Admission Year</b>	
2016	1.00 (reference)
2017	1.00 (0.93, 1.07)
2018	1.08 (1.01, 1.16)
2019	1.02 (0.95, 1.10)
2020	0.88 (0.81, 0.95)
<b>PATIENT-LEVEL CHARACTERISTICS</b>	
<b>Age</b>	1.28 (1.25, 1.30) per 1 year increase
<b>Sex (Female)</b>	0.99 (0.95, 1.02)
<b>Race</b>	
White	1.00 (reference)
Black	1.32 (1.24, 1.41)
Other	1.09 (1.00, 1.18)
<b>Ethnicity (Hispanic)</b>	0.95 (0.87, 1.03)
<b>Comorbidities</b>	
Myocardial Infarction	5.21 (4.72, 5.74)
Congestive Heart Failure	1.54 (1.47, 1.61)
Cardiac Arrhythmia	1.28 (1.22, 1.33)
Peripheral Vascular Disease	0.98 (0.91, 1.05)
Cerebrovascular Disease	1.23 (1.12, 1.35)
Pulmonary Circulation Disease	1.34 (1.25, 1.42)
Diabetes Mellitus	1.04 (1.00, 1.08)
Chronic Kidney Disease	0.91 (0.86, 0.95)
Hypertension	1.10 (1.05, 1.15)
Chronic Pulmonary Disease	1.36 (1.31, 1.42)
Liver Disease	0.93 (0.89, 0.98)
<b>Organ Support Therapies</b>	
Vasopressors	0.89 (0.85, 0.93)
Invasive Mechanical Ventilation	1.46 (1.40, 1.52)
Dialysis	1.06 (0.95, 1.19)

<b>Maximum Admission SOFA Score</b>	1.20 (1.17, 1.23) per 1 unit increase
<b>FACILITY-LEVEL CHARACTERISTICS</b>	
<b>Hospital Community Type</b>	
Rural	1.00 (reference)
Urban	4.45 (1.72, 11.51)
<b>Teaching Status</b>	
Community Hospital	1.00 (reference)
Academic Hospital	2.16 (0.85, 5.50)
<b>Hospital Beds</b>	
≥ 500	1.00 (reference)
200-499	4.86 (1.53, 15.41)
< 200	8.99 (2.55, 33.66)
<b>Geographic Region</b>	
South	1.00 (reference)
Northeast	0.13 (0.04, 0.44)
Midwest	1.55 (0.63, 3.80)
West	0.06 (0.01, 0.48)

<sup>a</sup>Abbreviations: OR = Odds ratio; CI = Confidence interval; SOFA = Sequential organ failure assessment

<sup>b</sup>Covariates:

**Patient-level factors** such as age, sex, race, ethnicity; history of myocardial infarction, congestive heart failure, cardiac arrhythmia, peripheral vascular disease, cerebrovascular disease, pulmonary circulation disease, diabetes mellitus, chronic kidney disease, hypertension, chronic pulmonary disease, liver disease; admission year, organ support therapies received, and maximum admission sequential organ failure assessment score.

**Facility-level factors** such as hospital community type, hospital teaching status, hospital beds, and hospital geographic region.

**e-Table 7: Cardiovascular diagnostics and therapeutics among critically ill adults with sepsis stratified by troponin I elevation**

<b>Cardiovascular Management Approach</b>	<b>Elevated Troponin I</b>	<b>Normal Troponin I</b>	<b>P Value</b>
Total N (%)	27,968 (52.7)	25,090 (47.3)	-
<b>CARDIOVASCULAR DIAGNOSTIC TESTING</b>			
<b>Serial troponin I, n (%)</b>	23,657 (84.6)	8,743 (34.8)	< 0.01
<b>Trend troponin I to peak, n (%)</b>	18,421 (65.9)	5,459 (21.8)	< 0.01
<b>Echocardiography, n (%)</b>	20,028 (71.6)	11,523 (45.9)	< 0.01
<b>Cardiac stress test, n (%)</b>	1,325 (4.7)	474 (1.9)	< 0.01
<b>Cardiac catheterization, n (%)</b>	2,183 (7.8)	192 (0.8)	< 0.01
<b>CARDIOVASCULAR THERAPEUTICS</b>			
<b>Antiplatelet agents, n (%)</b>	14,665 (52.4)	7,518 (30.0)	< 0.01
<b>Therapeutic anticoagulation, n (%)</b>	3,478 (12.4)	1,322 (5.3)	< 0.01
<b>Beta-blockers, n (%)</b>	15,951 (57.0)	10,293 (41.0)	< 0.01
<b>Statins, n (%)</b>	11,821 (42.3)	7,975 (31.8)	< 0.01

**e-Table 8: Cardiovascular diagnostics and therapeutics among critically ill adults with sepsis and elevated troponin I stratified by cardiovascular disease history**

<b>Cardiovascular Management Approach</b>	<b>Sepsis and Elevated Troponin I Cohort</b>	<b>Cardiovascular Disease</b>	<b>No Prior Cardiovascular Disease</b>	<b>Cardiovascular Disease or Cardiovascular Disease Equivalents</b>	<b>No Prior Cardiovascular Disease or Cardiovascular Disease Equivalents</b>
Total N (%)	27,665 (100)	21,974 (79.4)	5,691 (20.6)	24,816 (89.7)	2,849 (10.3)
<b>CARDIOVASCULAR DIAGNOSTIC TESTING</b>					
Hospital day of first elevated troponin I, median (IQR)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)	1 (1, 1)
First elevated troponin I level (ng/mL), median (IQR)	0.14 (0.07, 0.47)	0.16 (0.07, 0.56)	0.10 (0.06, 0.27)	0.15 (0.07, 0.50)	0.11 (0.06, 0.31)
Hospital day of maximum troponin I level, median (IQR)	1 (1, 2)	1 (1, 2)	1 (1, 2)	1 (1, 2)	1 (1, 2)
Maximum troponin I level (ng/mL), median (IQR)	0.28 (0.09, 1.30)	0.34 (0.10, 1.74)	0.16 (0.07, 0.51)	0.30 (0.10, 1.47)	0.18 (0.08, 0.54)
<b>Serial troponin I, n (%)</b>	23,447 (84.8)	19,005 (86.5)	4,442 (78.1)	21,168 (85.3)	2,279 (80.0)
Number of serial troponin I measurements after the first elevated troponin I, median (IQR)	2 (1, 3)	2 (1, 4)	2 (1, 3)	2 (1, 3)	2 (1, 3)
<b>Trend troponin I to peak, n (%)</b>	18,255 (66.0)	14,791 (67.3)	3,464 (60.9)	16,427 (66.2)	1,828 (64.2)
<b>Echocardiography, n (%)</b>	18,455 (66.7)	15,490 (70.5)	2,965 (52.1)	16,913 (68.2)	1,542 (54.1)
<b>Cardiac stress test, n (%)</b>	1,128 (4.1)	961 (4.4)	167 (2.9)	1,053 (4.2)	75 (2.6)
<b>Cardiac catheterization, n (%)</b>	1,829 (6.6)	1,756 (8.0)	73 (1.3)	1,786 (7.2)	43 (1.5)
<b>CARDIOVASCULAR THERAPEUTICS</b>					
<b>Antiplatelet agents, n (%)</b>	13,349 (48.3)	11,684 (53.2)	1,665 (29.3)	12,634 (50.9)	715 (25.1)
<b>Therapeutic anticoagulation, n (%)</b>	2,293 (8.3)	2,077 (9.5)	216 (3.8)	2,168 (8.7)	125 (4.4)
<b>Beta-blockers, n (%)</b>	13,967 (50.5)	12,238 (55.7)	1,729 (30.4)	13,251 (53.4)	716 (25.1)
<b>Statins, n (%)</b>	10,541 (38.1)	9,307 (42.4)	1,234 (21.7)	10,108 (40.7)	433 (15.2)

<sup>a</sup>Abbreviations: IQR=Interquartile range

**e-Table 9: Multivariable adjusted odds of cardiovascular diagnostic testing among critically ill adults with sepsis and elevated troponin I**

Characteristics	Cardiovascular Diagnostic Testing				
	Serial Troponin I OR (95% CI)	Trend Troponin I to Peak OR (95% CI)	Echocardiography OR (95% CI)	Cardiac Stress Test OR (95% CI)	Cardiac Catheterization OR (95% CI)
<b>First Elevated Troponin I Level</b>	0.95 (0.91, 0.98) per 1 unit increase	1.04 (1.01, 1.08) per 1 unit increase	-	-	-
<b>Maximum Troponin I Level</b>	-	-	1.22 (1.16, 1.28) per 1 unit increase	0.98 (0.92, 1.04) per 1 unit increase	1.32 (1.28, 1.36) per 1 unit increase
<b>Admission Year</b>					
2016	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)
2017	0.93 (0.81, 1.07)	1.08 (0.97, 1.19)	0.82 (0.73, 0.91)	1.03 (0.82, 1.31)	0.99 (0.80, 1.22)
2018	0.97 (0.84, 1.11)	1.03 (0.93, 1.14)	0.85 (0.76, 0.95)	1.07 (0.85, 1.35)	0.99 (0.81, 1.22)
2019	1.08 (0.94, 1.24)	1.12 (1.01, 1.24)	0.89 (0.80, 1.00)	1.15 (0.91, 1.46)	0.92 (0.75, 1.13)
2020	1.05 (0.91, 1.23)	1.10 (0.98, 1.23)	0.79 (0.70, 0.89)	1.03 (0.79, 1.35)	0.78 (0.62, 0.98)
<b>PATIENT-LEVEL CHARACTERISTICS</b>					
<b>Age</b>	0.97 (0.93, 1.01) per 1 year increase	0.93 (0.90, 0.96) per 1 year increase	0.88 (0.86, 0.91) per 1 year increase	0.85 (0.79, 0.91) per 1 year increase	0.76 (0.71, 0.80) per 1 year increase
<b>Sex (Female)</b>	1.00 (0.93, 1.07)	1.09 (1.03, 1.15)	0.97 (0.92, 1.02)	0.99 (0.87, 1.12)	0.94 (0.84, 1.04)
<b>Race</b>					
White	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)
Black	1.06 (0.95, 1.18)	0.95 (0.87, 1.03)	0.95 (0.88, 1.04)	1.25 (1.03, 1.53)	0.70 (0.59, 0.84)
Other	0.98 (0.84, 1.16)	0.96 (0.85, 1.09)	0.90 (0.79, 1.02)	1.74 (1.35, 2.25)	1.11 (0.89, 1.39)
<b>Ethnicity (Hispanic)</b>	1.11 (0.94, 1.33)	1.10 (0.97, 1.25)	0.85 (0.74, 0.97)	0.88 (0.65, 1.18)	0.81 (0.62, 1.05)
<b>Comorbidities</b>					
Myocardial Infarction	5.33 (4.69, 6.06)	1.94 (1.81, 2.08)	2.79 (2.58, 3.01)	2.23 (1.92, 2.58)	4.92 (4.39, 5.51)
Congestive Heart Failure	1.19 (1.11, 1.29)	1.04 (0.98, 1.10)	1.44 (1.36, 1.53)	1.24 (1.08, 1.43)	2.44 (2.16, 2.76)
Cardiac Arrhythmia	0.98 (0.91, 1.05)	0.95 (0.90, 1.01)	1.17 (1.10, 1.24)	0.79 (0.69, 0.90)	1.13 (1.01, 1.26)
Peripheral Vascular Disease	1.14 (1.01, 1.28)	1.02 (0.93, 1.11)	0.96 (0.87, 1.04)	0.95 (0.77, 1.16)	1.22 (1.04, 1.43)
Cerebrovascular Disease	1.17 (1.01, 1.35)	1.03 (0.92, 1.14)	1.63 (1.45, 1.84)	1.08 (0.84, 1.38)	0.68 (0.55, 0.84)
Pulmonary Circulation Disease	1.23 (1.11, 1.36)	1.06 (0.98, 1.14)	1.52 (1.40, 1.65)	0.84 (0.71, 1.01)	1.03 (0.90, 1.19)
Diabetes Mellitus	1.01 (0.94, 1.08)	0.92 (0.87, 0.98)	0.91 (0.86, 0.96)	1.06 (0.93, 1.21)	1.13 (1.01, 1.26)

Chronic Kidney Disease	0.96 (0.89, 1.04)	0.89 (0.84, 0.95)	0.88 (0.83, 0.94)	0.86 (0.74, 1.00)	0.73 (0.64, 0.82)
Hypertension	1.04 (0.94, 1.14)	1.03 (0.96, 1.10)	0.91 (0.85, 0.98)	1.20 (1.01, 1.43)	1.22 (1.05, 1.41)
Chronic Pulmonary Disease	1.03 (0.96, 1.11)	1.13 (1.07, 1.20)	0.87 (0.82, 0.92)	0.94 (0.82, 1.07)	0.89 (0.80, 0.99)
Liver Disease	1.04 (0.94, 1.14)	0.89 (0.83, 0.95)	1.02 (0.95, 1.10)	1.00 (0.83, 1.18)	0.65 (0.55, 0.76)
<b>Organ Support Therapies</b>					
Vasopressors	0.81 (0.75, 0.87)	0.86 (0.81, 0.91)	0.89 (0.84, 0.95)	0.75 (0.65, 0.88)	0.96 (0.85, 1.08)
Invasive Mechanical Ventilation	1.14 (1.06, 1.23)	1.07 (1.01, 1.13)	1.09 (1.03, 1.16)	0.68 (0.59, 0.78)	1.18 (1.05, 1.31)
Dialysis	0.67 (0.59, 0.78)	0.68 (0.61, 0.76)	0.65 (0.58, 0.73)	1.15 (0.89, 1.50)	1.06 (0.83, 1.37)
<b>Maximum Admission SOFA Score</b>	1.03 (0.99, 1.08) per 1 unit increase	0.93 (0.90, 0.96) per 1 unit increase	1.14 (1.10, 1.18) per 1 unit increase	0.98 (0.91, 1.06) per 1 unit increase	0.85 (0.80, 0.90) per 1 unit increase
<b>FACILITY-LEVEL CHARACTERISTICS</b>					
<b>Hospital Community Type</b>					
Rural	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)
Urban	1.01 (0.63, 1.61)	1.03 (0.70, 1.52)	1.14 (0.87, 1.50)	1.77 (0.81, 3.88)	0.89 (0.52, 1.51)
<b>Teaching Status</b>					
Community Hospital	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)
Academic Hospital	1.24 (0.82, 1.88)	1.35 (0.96, 1.91)	0.68 (0.53, 0.86)	0.96 (0.49, 1.87)	0.84 (0.54, 1.32)
<b>Hospital Beds</b>					
≥ 500	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)
200-499	0.92 (0.55, 1.54)	0.88 (0.57, 1.36)	0.70 (0.52, 0.95)	1.38 (0.61, 3.10)	0.72 (0.42, 1.21)
< 200	1.29 (0.73, 2.28)	1.18 (0.73, 1.90)	0.76 (0.54, 1.06)	1.00 (0.40, 2.51)	0.29 (0.16, 0.55)
<b>Geographic Region</b>					
South	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)
Northeast	1.01 (0.55, 1.86)	1.52 (0.91, 2.53)	1.39 (0.98, 1.99)	1.66 (0.64, 4.30)	0.99 (0.52, 1.88)
Midwest	1.39 (0.95, 2.02)	1.66 (1.21, 2.27)	1.14 (0.92, 1.43)	2.13 (1.16, 3.89)	0.63 (0.41, 0.96)
West	1.30 (0.21, 8.03)	1.69 (0.37, 7.65)	1.22 (0.42, 3.56)	< 0.01 (<0.001, >100)	1.05 (0.15, 7.18)

<sup>a</sup>Abbreviations: OR = Odds ratio; CI = Confidence interval; SOFA = Sequential organ failure assessment

<sup>b</sup>Covariates:

**Patient-level factors** such as age, sex, race, ethnicity; history of myocardial infarction, congestive heart failure, cardiac arrhythmia, peripheral vascular disease, cerebrovascular disease, pulmonary circulation disease, diabetes mellitus, chronic kidney disease, hypertension, chronic pulmonary disease, liver disease; admission year, organ support therapies received, maximum admission sequential organ failure assessment score, and either first elevated troponin I level or maximum troponin I level.

**Facility-level factors** such as hospital community type, hospital teaching status, hospital beds, and hospital geographic region.

**e-Table 10: Multivariable adjusted odds of cardiovascular therapeutics among critically ill adults with sepsis and elevated troponin I**

Characteristics	Cardiovascular Therapeutics			
	Antiplatelet Agents OR (95% CI)	Therapeutic Anticoagulation OR (95% CI)	Beta-Blockers OR (95% CI)	Statins OR (95% CI)
<b>First Elevated Troponin I Level</b>	-	-	-	-
<b>Maximum Troponin I Level</b>	1.32 (1.27, 1.37) per 1 unit increase	1.36 (1.31, 1.42) per 1 unit increase	1.10 (1.07, 1.13) per 1 unit increase	1.16 (1.12, 1.19) per 1 unit increase
<b>Admission Year</b>				
2016	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)
2017	0.92 (0.83, 1.02)	0.78 (0.62, 0.99)	1.06 (0.96, 1.18)	0.99 (0.89, 1.10)
2018	0.88 (0.79, 0.97)	0.70 (0.56, 0.89)	1.04 (0.94, 1.15)	1.03 (0.93, 1.15)
2019	0.78 (0.71, 0.86)	0.72 (0.57, 0.91)	0.98 (0.89, 1.09)	1.06 (0.95, 1.18)
2020	0.71 (0.63, 0.79)	0.71 (0.56, 0.91)	0.89 (0.80, 0.99)	1.06 (0.94, 1.19)
<b>PATIENT-LEVEL CHARACTERISTICS</b>				
<b>Age</b>	1.13 (1.10, 1.17) per 1 year increase	0.93 (0.88, 0.99) per 1 year increase	0.98 (0.95, 1.01) per 1 year increase	1.18 (1.15, 1.22) per 1 year increase
<b>Sex (Female)</b>	0.87 (0.83, 0.92)	0.93 (0.84, 1.03)	0.97 (0.92, 1.02)	0.87 (0.82, 0.92)
<b>Race</b>				
White	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)
Black	0.95 (0.87, 1.03)	1.07 (0.90, 1.26)	1.04 (0.96, 1.12)	0.93 (0.85, 1.01)
Other	0.85 (0.75, 0.96)	1.07 (0.86, 1.33)	0.93 (0.83, 1.05)	1.01 (0.89, 1.14)
<b>Ethnicity (Hispanic)</b>	0.93 (0.82, 1.06)	0.99 (0.69, 1.44)	0.85 (0.75, 0.97)	0.85 (0.74, 0.98)
<b>Comorbidities</b>				
Myocardial Infarction	2.87 (2.69, 3.07)	3.12 (2.79, 3.48)	1.83 (1.71, 1.95)	2.21 (2.07, 2.36)
Congestive Heart Failure	1.74 (1.65, 1.84)	1.23 (1.10, 1.37)	1.90 (1.80, 2.01)	1.57 (1.48, 1.66)
Cardiac Arrhythmia	0.93 (0.88, 0.98)	1.12 (1.01, 1.25)	1.55 (1.47, 1.63)	0.96 (0.91, 1.01)
Peripheral Vascular Disease	1.14 (1.05, 1.24)	1.10 (0.94, 1.29)	1.14 (1.05, 1.24)	1.30 (1.20, 1.42)
Cerebrovascular Disease	1.47 (1.32, 1.63)	0.79 (0.64, 0.97)	1.26 (1.14, 1.40)	1.77 (1.60, 1.97)
Pulmonary Circulation Disease	0.98 (0.91, 1.05)	1.99 (1.74, 2.27)	0.83 (0.77, 0.89)	0.97 (0.90, 1.04)
Diabetes Mellitus	1.37 (1.30, 1.44)	1.06 (0.95, 1.18)	1.12 (1.06, 1.18)	1.71 (1.62, 1.81)
Chronic Kidney Disease	1.07 (1.01, 1.13)	0.83 (0.74, 0.93)	0.99 (0.94, 1.05)	1.17 (1.10, 1.24)
Hypertension	1.31 (1.22, 1.41)	1.14 (0.99, 1.30)	1.80 (1.68, 1.93)	1.59 (1.47, 1.71)

Chronic Pulmonary Disease	1.16 (1.10, 1.23)	0.92 (0.83, 1.03)	1.00 (0.95, 1.06)	1.18 (1.12, 1.25)
Liver Disease	0.65 (0.61, 0.70)	0.67 (0.58, 0.78)	0.77 (0.72, 0.83)	0.44 (0.41, 0.48)
<b>Organ Support Therapies</b>				
Vasopressors	0.79 (0.74, 0.84)	0.99 (0.89, 1.11)	0.53 (0.50, 0.57)	0.79 (0.74, 0.84)
Invasive Mechanical Ventilation	0.79 (0.75, 0.84)	1.17 (1.06, 1.31)	1.01 (0.96, 1.07)	0.80 (0.76, 0.85)
Dialysis	0.80 (0.71, 0.90)	0.89 (0.70, 1.13)	0.79 (0.71, 0.89)	0.79 (0.70, 0.90)
<b>Maximum Admission SOFA Score</b>	0.91 (0.88, 0.94) per 1 unit increase	0.95 (0.89, 1.01) per 1 unit increase	0.94 (0.92, 0.97) per 1 unit increase	0.88 (0.85, 0.91) per 1 unit increase
<b>FACILITY-LEVEL CHARACTERISTICS</b>				
<b>Hospital Community Type</b>				
Rural	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)
Urban	0.94 (0.79, 1.12)	1.28 (0.37, 4.43)	0.85 (0.70, 1.04)	1.07 (0.88, 1.31)
<b>Teaching Status</b>				
Community Hospital	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)
Academic Hospital	0.96 (0.83, 1.11)	1.61 (0.54, 4.86)	1.04 (0.88, 1.24)	1.13 (0.95, 1.35)
<b>Hospital Beds</b>				
≥ 500	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)
200-499	1.08 (0.91, 1.28)	3.99 (0.96, 16.66)	1.07 (0.87, 1.32)	1.05 (0.85, 1.29)
< 200	1.26 (1.04, 1.53)	2.79 (0.59, 13.20)	1.08 (0.85, 1.36)	1.14 (0.90, 1.45)
<b>Geographic Region</b>				
South	1.00 (reference)	1.00 (reference)	1.00 (reference)	1.00 (reference)
Northeast	1.01 (0.81, 1.25)	0.01 (<0.01, 0.11)	0.97 (0.75, 1.25)	1.17 (0.90, 1.51)
Midwest	1.01 (0.88, 1.15)	0.43 (0.15, 1.18)	0.95 (0.81, 1.11)	1.17 (1.00, 1.38)
West	0.75 (0.37, 1.53)	< 0.01 (<0.001, >100)	0.73 (0.33, 1.65)	0.70 (0.31, 1.61)

<sup>a</sup>Abbreviations: OR = Odds ratio; CI = Confidence interval; SOFA = Sequential organ failure assessment

<sup>b</sup>Covariates:

**Patient-level factors** such as age, sex, race, ethnicity; history of myocardial infarction, congestive heart failure, cardiac arrhythmia, peripheral vascular disease, cerebrovascular disease, pulmonary circulation disease, diabetes mellitus, chronic kidney disease, hypertension, chronic pulmonary disease, liver disease; admission year, organ support therapies received, maximum admission sequential organ failure assessment score, and maximum troponin I level.

**Facility-level factors** such as hospital community type, hospital teaching status, hospital beds, and hospital geographic region.