

Supplemental Table 2. Characteristics of Initial Patient Population.

*	Population Clinical Characteristics		
	Initial Derivation Cohort 2007-2010 (n = 32,560)	Initial Validation Cohort 2007-2010 (n = 16,281)	Prospective Validation Cohort 2011-May 2015 (n=61,934)
	*	*	*
Demographics	*	*	*
Age, mean ± standard deviation	65.6 ± 16.1	65.6 ± 16.0	65.2 ± 15.9
Male sex	18,996 (58.3%)	9,500 (58.4%)	36,241 (58.5%)
Race	*	*	*
White	22,576 (69.3%)	11,337 (69.6%)	42,580 (68.8%)
Black	6,678 (20.5%)	3,288 (20.2%)	14,138 (22.8%)
Other	1,268 (3.9%)	618 (3.8%)	1,530 (2.5%)
Unknown	2,038 (6.3%)	1,038 (6.4%)	3,686 (6.0%)
Hispanic ethnicity	2,254 (6.9%)	1,060 (6.5%)	2,780 (4.5%)
Pre-Existing Conditions	*	*	*
Respiratory insufficiency	13,301 (40.9%)	6,640 (40.8%)	26,527 (42.8%)
Renal insufficiency	10,850 (33.3%)	5,358 (32.9%)	21,336 (34.4%)
Diabetes mellitus	10,001 (30.7%)	4,928 (30.3%)	19,652 (31.7%)
Hypotension	8,413 (25.8%)	4,308 (26.5%)	14,645 (23.6%)
Heart failure during admission	5,370 (16.5%)	2,678 (16.4%)	9,527 (15.4%)
Prior heart failure	6,278 (19.3%)	3,094 (19.0%)	12,971 (20.9%)
MI during admission	5,184 (15.9%)	2,501 (15.4%)	8,807 (14.2%)
Prior Myocardial infarction	4,791 (14.7%)	2,319 (14.2%)	8,389 (13.5%)
Metabolic/electrolyte abnormality	4,765 (14.6%)	2,280 (14.0%)	10,640 (17.2%)
Septicemia	5,519 (17.0%)	2,777 (17.1%)	10,550 (17.0%)

Pneumonia	4,342 (13.3%)	2,239 (13.8%)	8,445 (13.6%)
Metastatic/hematologic malignancy	4,046 (12.4%)	1,997 (12.3%)	7,108 (11.5%)
Hepatic insufficiency	2,474 (7.6%)	1,175 (7.2%)	4,434 (7.2%)
Baseline depression in CNS function	3,640 (11.2%)	1,853 (11.4%)	5,449 (8.8%)
Acute CNS non-stroke event	2,250 (6.9%)	1,139 (7.0%)	3,797 (6.1%)
Acute stroke	1,234 (3.8%)	605 (3.7%)	2,266 (3.7%)
Major trauma	1,399 (4.3%)	668 (4.1%)	2,853 (4.6%)
Characteristics of arrest	*	*	*
Cardiac arrest rhythm	*	*	*
Asystole	10,997 (33.8%)	5,491 (33.7%)	17,893 (28.9%)
Pulseless electrical activity	15,327 (47.1%)	7,653 (47.0%)	33,240 (53.7%)
Ventricular fibrillation	3,691 (11.3%)	1,862 (11.4%)	6,149 (9.9%)
Ventricular tachycardia	2,545 (7.8%)	1,275 (7.8%)	4,652 (7.5%)
Location of cardiac arrest	*	*	*
Intensive care unit	15,780 (48.5%)	7,809 (48.0%)	30,084 (48.6%)
Monitored unit	5,034 (15.5%)	2,539 (15.6%)	9,442 (15.2%)
Non-monitored unit	5,632 (17.3%)	2,824 (17.3%)	9,477 (15.3%)
Emergency room	3,307 (10.2%)	1,687 (10.4%)	7,072 (11.4%)
Procedural or surgical area	2,132 (6.5%)	1,073 (6.6%)	4,662 (7.5%)
Other	675 (2.1%)	349 (2.1%)	1,197 (1.9%)
Interventions in Place	*	*	*
Mechanical ventilation	10,747 (33.0%)	5,422 (33.3%)	20,604 (33.3%)
Intravenous vasopressor	9,549 (29.3%)	4,800 (29.5%)	14,177 (22.9%)
Dialysis	1,163 (3.6%)	598 (3.7%)	1,687 (2.7%)

Note: * indicates cell intentionally left blank