

SUPPLEMENTAL MATERIAL

Supplementary Table 1. Identification of diagnoses and procedures

Comorbidity	International Classification of Disease 9.0 Clinical Modification Codes
Cardiac arrest	427.5
Coronary angiography	37.22, 37.23, 88.53-88.56
Percutaneous coronary intervention	00.66, 36.01, 36.02, 36.05, 36.06, 36.07, 88.57
Intra-aortic balloon pump	37.61
Percutaneous mechanical circulatory support	37.68
Extra-corporeal membrane oxygenation	39.65
Right heart catheterization	37.21, 37.23
Pulmonary artery catheterization	204 (Clinical Classification Software code)
Invasive mechanical ventilation	96.7, 96.70, 96.71, 96.72
Hemodialysis	39.95
Acute renal failure	584, 584.5, 584.6, 584.7, 584.8, 584.9
Acute respiratory failure	518.81, 518.85, 786.09, 799.1
Acute hepatic failure	570.x, 572.2, 573.3, 573.4
Acute neurologic failure	293, 293.0, 293.1, 293.8, 293.81-293.84, 293.89, 293.9, 348.1, 780.01, 780.09, 89.14, 348.3, 348.30, 348.31, 348.39

Supplementary Table 2. Multivariable regression for proportion of cardiogenic shock in acute myocardial infarction

Total cohort (N = 402,290)		Odds ratio	95% confidence interval		P
			Lower Limit	Upper Limit	
Hospital region	Northeast	Reference category			
	Midwest	1.14	1.11	1.17	<0.001
	South	1.13	1.10	1.15	<0.001
	West	1.36	1.32	1.39	<0.001
Age groups (years)	19-49	Reference category			
	50-59	1.23	1.19	1.27	<0.001
	60-69	1.19	1.15	1.24	<0.001
	70-79	1.02	0.98	1.06	0.31
	≥80	0.95	0.92	0.99	0.03
Female sex		0.90	0.89	0.92	<0.001
Race	White	Reference category			
	Black	0.71	0.69	0.74	<0.001

	Others	1.03	1.01	1.04	0.003
Primary payer	Medicare	Reference category			
	Medicaid	1.24	1.20	1.29	<0.001
	Private	1.00	0.98	1.02	0.92
	Uninsured	1.26	1.22	1.31	<0.001
	No Charge	1.04	0.93	1.17	0.45
	Others	1.07	1.02	1.13	0.007
Quartile of median household income for zip code	0-25th	Reference category			
	26th-50th	0.99	0.97	1.01	0.43
	51st-75th	1.01	0.99	1.03	0.34
	75th-100th	1.03	1.01	1.05	0.011
Hospital Location / Teaching Status	Rural	Reference category			
	Urban Non-Teaching	1.55	1.51	1.60	<0.001
	Urban Teaching	1.84	1.79	1.89	<0.001
Hospital Bedsize	Small	Reference category			
	Medium	1.22	1.19	1.26	<0.001
	Large	1.52	1.48	1.56	<0.001
Charlson Comorbidity	0-3	Reference category			

Index	4-6	2.15	2.09	2.20	<0.001
	≥ 7	2.08	2.02	2.15	<0.001
Year	2000	Reference category			
	2001	0.97	0.93	1.01	0.13
	2002	1.03	0.99	1.08	0.13
	2003	1.04	1.00	1.08	0.06
	2004	1.04	1.00	1.08	0.08
	2005	1.07	1.03	1.12	0.001
	2006	1.11	1.06	1.16	<0.001
	2007	1.17	1.12	1.22	<0.001
	2008	1.21	1.16	1.26	<0.001
	2009	1.29	1.24	1.35	<0.001
	2010	1.31	1.25	1.36	<0.001
	2011	1.42	1.36	1.48	<0.001
	2012	1.38	1.32	1.44	<0.001
	2013	1.40	1.35	1.46	<0.001
	2014	1.53	1.47	1.59	<0.001
2015	1.48	1.42	1.55	<0.001	

	2016	1.50	1.45	1.55	<0.001
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