

Appendix 1 Search algorithm and study definitions

Search algorithm

Base: “All Patients,” Location: “Jacobi Medical Center,” and any of Diagnosis: “cardiac arrest” (ICD-10-CM:) or “cardiac arrest, cause unspecified” (ICD-10-CM:146.9) and “ED diagnosis” or “cardiac arrest due to underlying cardiac condition” (ICD-10-CM:146.2) and “ED diagnosis” or “cardiac arrest due to other underlying condition” (ICD-10-CM:146.8) and “ED diagnosis” or “collapse due to cardiac arrest” and “ED diagnosis” or “idiopathic cardiac arrest” and “ED diagnosis” or “cardiac arrest with successful resuscitation” and “ED diagnosis” or “cardiac arrest due to respiratory disorder” and “ED diagnosis” or “cardiac arrest due to cardiac disorder” and “ED diagnosis” or “cardiac arrest due to drowning” and “ED diagnosis.”

Study definitions

- “Location of arrest” Categorized as either “place of residence,” “public location”, or “other” (hotel room, private office, long-term care nursing facility).
- “Bystander CPR” Cardiopulmonary resuscitation performed by an individual who was not a part of an organized emergency response system.
- “EMS reflex time” Time interval between the time the 9-1-1 call was received and the time the emergency response vehicle arrived at the scene.
- “Shockable initial rhythm” Ventricular tachycardia or ventricular fibrillation identified by EMS personnel or if automated external defibrillator advised shock administration.
- “Successful resuscitation or survived event” Sustained ROSC until admission and transfer of care to the receiving hospital.
- CAHP score used to help predict an unfavorable or poor neurological outcome was defined by cerebral performance category (CPC) 3 (severe disability), 4 (vegetative state), or 5 (death) at the time of hospital discharge among resuscitated patients from OHCA. Risk of poor neurological outcome was predicted to be low with scores <150, moderate for 150–200, and high if >200.

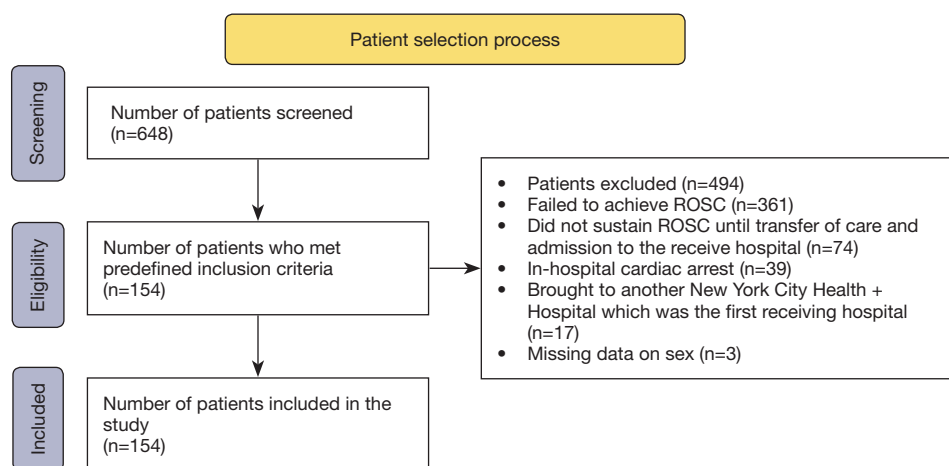


Figure S1 Patient selection process. ROSC, return of spontaneous circulation.

Table S1 Predictors of survival to hospital discharge

Variables	Multivariable approach		
	OR	95% CI	P value
Age (years)	0.96	0.929–0.992	0.01
Sex	0.84	0.300–2.355	0.74
Ethnicity	0.80	0.576–1.120	0.19
Witnessed arrest	2.60	0.710–9.551	0.14
Bystander CPR given	0.70	0.225–2.183	0.54
Presences of initial shockable rhythm	7.12	1.522–33.32	0.01
EMS response time (minutes)	1.04	0.961–1.127	0.32
Location of arrest	1.02	0.568–1.849	0.93
Resuscitation duration (minutes)	0.97	0.946–1.00	0.08

OR, odds ratio; CI, confidence interval; CPR, cardiopulmonary resuscitation; EMS, emergency medical services.

Table S2 Predictors of survival at one year after discharge

Variables	Multivariable approach		
	OR	95% CI	P value
Age (years)	0.96	0.926–0.999	0.04
Sex	0.51	0.128–2.002	0.33
Bystander CPR	0.32	0.052–1.980	0.22
Initial shockable rhythm	7.26	1.573–33.50	0.01
EMS response time (minutes)	1.06	0.971–1.162	0.18
Resuscitation duration (minutes)	0.97	0.922–1.010	0.12

OR, odds ratio; CI, confidence interval; CPR, cardiopulmonary resuscitation; EMS, emergency medical services.