

CARES Survival Report

Incident State: MI | Service Date: From 10/01/2005 Through 12/31/2017 | Presumed Cardiac Etiology

	OVERALL N = 20317				
	Total N (%)	Sustained ROSC (%)	Survival to hospital admission (%)	Survival to hospital discharge (%)	Survival to discharge with CPC 1 or 2 [†] (%)
Total	20317	5492 (27.0)	4963 (24.4)	1701 (8.4)	1368 (6.7)
Location of Arrest					
Home/Residence	14069 (69.2)	3625 (25.8)	3277 (23.3)	983 (7.0)	769 (5.5)
Nursing Home	3201 (15.8)	735 (23.0)	540 (16.9)	104 (3.2)	48 (1.5)
Public Setting	3047 (15.0)	1132 (37.2)	1146 (37.6)	614 (20.2)	551 (18.1)
Arrest Witnessed Status					
Unwitnessed	10810 (53.2)	1978 (18.3)	1745 (16.1)	408 (3.8)	286 (2.6)
Bystander witnessed	7480 (36.8)	2738 (36.6)	2470 (33.0)	982 (13.1)	812 (10.9)
911 Responder witnessed	2027 (10.0)	776 (38.3)	748 (36.9)	311 (15.3)	270 (13.3)
Bystander CPR*					
Bystander CPR	8017 (43.8)	2270 (28.3)	1985 (24.8)	759 (9.5)	609 (7.6)
No Bystander CPR	10271 (56.2)	2446 (23.8)	2230 (21.7)	631 (6.1)	489 (4.8)
Bystander CPR (excludes nursing home/healthcare facility events)	4931 (33.6)	1488 (30.2)	1374 (27.9)	596 (12.1)	507 (10.3)
No Bystander CPR (excludes nursing home/healthcare facility events)	9729 (66.4)	2318 (23.8)	2128 (21.9)	609 (6.3)	477 (4.9)
Initial Arrest Rhythm					
Shockable	4198 (20.7)	1820 (43.4)	1815 (43.2)	1053 (25.1)	935 (22.3)
Non-shockable	16118 (79.3)	3672 (22.8)	3148 (19.5)	648 (4.0)	433 (2.7)
AED Use					
Bystander AED use*	1535 (8.4)	502 (32.7)	445 (29.0)	211 (13.7)	178 (11.6)
Bystander AED use* (excludes nursing home/healthcare facility events)	330 (2.3)	161 (48.8)	165 (50.0)	120 (36.4)	114 (34.5)
Trained provider (First Responder) AED use	5107 (25.1)	1473 (28.8)	1272 (24.9)	454 (8.9)	379 (7.4)
Utstein					
Witnessed and shockable	2833 (14.0)	1362 (48.1)	1359 (48.0)	837 (29.5)	761 (26.9)
Bystander witnessed and shockable	2351 (11.6)	1101 (46.8)	1097 (46.7)	652 (27.7)	588 (25.0)
Hypothermia					
Field hypothermia	92 (0.5)	69 (75.0)	54 (58.7)	21 (22.8)	18 (19.6)
In-hospital hypothermia (among admitted patients)	2278 (45.9)	--	--	763 (33.5)	567 (24.9)

Inclusion Criteria: An out-of-hospital cardiac arrest where resuscitation is attempted by a 911 responder (CPR and/or defibrillation). This would also include patients that received an AED shock by a bystander prior to the arrival of 911 responders.

NOTE: Analysis excludes patients with missing hospital outcome (N=18).

*Bystander CPR and bystander AED use calculations exclude 911 Responder witnessed events.

[†]CPC missing for 0 patients.

CARES Survival Report

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	Age = ≤1 years N = 171				
	Total N (%)	Sustained ROSC (%)	Survival to hospital admission (%)	Survival to hospital discharge (%)	Survival to discharge with CPC 1 or 2 [†] (%)
Total	171	18 (10.5)	27 (15.8)	7 (4.1)	3 (1.8)
Location of Arrest					
Home/Residence	158 (92.4)	17 (10.8)	26 (16.5)	7 (4.4)	3 (1.9)
Nursing Home	4 (2.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Public Setting	9 (5.3)	1 (11.1)	1 (11.1)	0 (0.0)	0 (0.0)
Arrest Witnessed Status					
Unwitnessed	135 (78.9)	9 (6.7)	15 (11.1)	1 (0.7)	0 (0.0)
Bystander witnessed	28 (16.4)	9 (32.1)	10 (35.7)	5 (17.9)	3 (10.7)
911 Responder witnessed	8 (4.7)	0 (0.0)	2 (25.0)	1 (12.5)	0 (0.0)
Bystander CPR*					
Bystander CPR	61 (37.4)	9 (14.8)	9 (14.8)	4 (6.6)	2 (3.3)
No Bystander CPR	102 (62.6)	9 (8.8)	16 (15.7)	2 (2.0)	1 (1.0)
Bystander CPR (excludes nursing home/healthcare facility events)	58 (36.5)	9 (15.5)	9 (15.5)	4 (6.9)	2 (3.4)
No Bystander CPR (excludes nursing home/healthcare facility events)	101 (63.5)	9 (8.9)	15 (14.9)	2 (2.0)	1 (1.0)
Initial Arrest Rhythm					
Shockable	9 (5.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Non-shockable	161 (94.7)	18 (11.2)	27 (16.8)	7 (4.3)	3 (1.9)
AED Use					
Bystander AED use*	1 (0.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Bystander AED use* (excludes nursing home/healthcare facility events)	0 (0.0)	0 (NaN)	0 (NaN)	0 (NaN)	0 (NaN)
Trained provider (First Responder) AED use	27 (15.8)	2 (7.4)	6 (22.2)	0 (0.0)	0 (0.0)
Utstein					
Witnessed and shockable	5 (2.9)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Bystander witnessed and shockable	3 (1.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Hypothermia					
Field hypothermia	0 (0.0)	0 (NaN)	0 (NaN)	0 (NaN)	0 (NaN)
In-hospital hypothermia (among admitted patients)	2 (7.4)	--	--	1 (50.0)	0 (0.0)

Inclusion Criteria: An out-of-hospital cardiac arrest where resuscitation is attempted by a 911 responder (CPR and/or defibrillation). This would also include patients that received an AED shock by a bystander prior to the arrival of 911 responders.

NOTE: Analysis excludes patients with missing hospital outcome (N=0).

*Bystander CPR and bystander AED use calculations exclude 911 Responder witnessed events.

[†]CPC missing for 0 patients.

CARES Survival Report

Incident State: MI | Service Date: From 10/01/2005 Through 12/31/2017 | Presumed Cardiac Etiology

	Age = >1 - 12 years N = 52				
	Total N (%)	Sustained ROSC (%)	Survival to hospital admission (%)	Survival to hospital discharge (%)	Survival to discharge with CPC 1 or 2 [†] (%)
Total	52	6 (11.5)	11 (21.2)	4 (7.7)	4 (7.7)
Location of Arrest					
Home/Residence	47 (90.4)	4 (8.5)	9 (19.1)	2 (4.3)	2 (4.3)
Nursing Home	0 (0.0)	0 (NaN)	0 (NaN)	0 (NaN)	0 (NaN)
Public Setting	5 (9.6)	2 (40.0)	2 (40.0)	2 (40.0)	2 (40.0)
Arrest Witnessed Status					
Unwitnessed	36 (69.2)	1 (2.8)	5 (13.9)	0 (0.0)	0 (0.0)
Bystander witnessed	16 (30.8)	5 (31.2)	6 (37.5)	4 (25.0)	4 (25.0)
911 Responder witnessed	0 (0.0)	0 (NaN)	0 (NaN)	0 (NaN)	0 (NaN)
Bystander CPR*					
Bystander CPR	18 (34.6)	1 (5.6)	4 (22.2)	2 (11.1)	2 (11.1)
No Bystander CPR	34 (65.4)	3 (8.8)	7 (20.6)	2 (5.9)	2 (5.9)
Bystander CPR (excludes nursing home/healthcare facility events)	17 (33.3)	3 (17.6)	4 (23.5)	2 (11.8)	2 (11.8)
No Bystander CPR (excludes nursing home/healthcare facility events)	34 (66.7)	3 (8.8)	7 (20.6)	2 (5.9)	2 (5.9)
Initial Arrest Rhythm					
Shockable	5 (9.6)	2 (40.0)	2 (40.0)	2 (40.0)	2 (40.0)
Non-shockable	47 (90.4)	4 (8.5)	9 (19.1)	2 (4.3)	2 (4.3)
AED Use					
Bystander AED use*	3 (5.8)	1 (33.3)	2 (66.7)	2 (66.7)	2 (66.7)
Bystander AED use* (excludes nursing home/healthcare facility events)	2 (3.9)	2 (100.0)	2 (100.0)	2 (100.0)	2 (100.0)
Trained provider (First Responder) AED use	11 (21.2)	1 (9.1)	2 (18.2)	0 (0.0)	0 (0.0)
Utstein					
Witnessed and shockable	3 (5.8)	2 (66.7)	2 (66.7)	2 (66.7)	2 (66.7)
Bystander witnessed and shockable	3 (5.8)	2 (66.7)	2 (66.7)	2 (66.7)	2 (66.7)
Hypothermia					
Field hypothermia	1 (2.0)	1 (100.0)	1 (100.0)	1 (100.0)	1 (100.0)
In-hospital hypothermia (among admitted patients)	2 (18.2)	--	--	1 (50.0)	1 (50.0)

Inclusion Criteria: An out-of-hospital cardiac arrest where resuscitation is attempted by a 911 responder (CPR and/or defibrillation). This would also include patients that received an AED shock by a bystander prior to the arrival of 911 responders.

NOTE: Analysis excludes patients with missing hospital outcome (N=1).

*Bystander CPR and bystander AED use calculations exclude 911 Responder witnessed events.

[†]CPC missing for 0 patients.

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	Age = 13 - 18 years N = 72				
	Total N (%)	Sustained ROSC (%)	Survival to hospital admission (%)	Survival to hospital discharge (%)	Survival to discharge with CPC 1 or 2 [†] (%)
Total	72	24 (33.3)	30 (41.7)	16 (22.2)	14 (19.4)
Location of Arrest					
Home/Residence	58 (80.6)	17 (29.3)	18 (31.0)	8 (13.8)	6 (10.3)
Nursing Home	0 (0.0)	0 (NaN)	0 (NaN)	0 (NaN)	0 (NaN)
Public Setting	14 (19.4)	7 (50.0)	12 (85.7)	8 (57.1)	8 (57.1)
Arrest Witnessed Status					
Unwitnessed	43 (59.7)	9 (20.9)	12 (27.9)	4 (9.3)	2 (4.7)
Bystander witnessed	26 (36.1)	14 (53.8)	17 (65.4)	12 (46.2)	12 (46.2)
911 Responder witnessed	3 (4.2)	1 (33.3)	1 (33.3)	0 (0.0)	0 (0.0)
Bystander CPR*					
Bystander CPR	31 (44.9)	16 (51.6)	17 (54.8)	12 (38.7)	12 (38.7)
No Bystander CPR	38 (55.1)	7 (18.4)	12 (31.6)	4 (10.5)	2 (5.3)
Bystander CPR (excludes nursing home/healthcare facility events)	30 (44.1)	16 (53.3)	16 (53.3)	12 (40.0)	12 (40.0)
No Bystander CPR (excludes nursing home/healthcare facility events)	38 (55.9)	7 (18.4)	12 (31.6)	4 (10.5)	2 (5.3)
Initial Arrest Rhythm					
Shockable	18 (25.0)	12 (66.7)	14 (77.8)	13 (72.2)	11 (61.1)
Non-shockable	54 (75.0)	12 (22.2)	16 (29.6)	3 (5.6)	3 (5.6)
AED Use					
Bystander AED use*	5 (7.2)	3 (60.0)	5 (100.0)	3 (60.0)	3 (60.0)
Bystander AED use* (excludes nursing home/healthcare facility events)	4 (5.9)	3 (75.0)	4 (100.0)	3 (75.0)	3 (75.0)
Trained provider (First Responder) AED use	22 (30.6)	7 (31.8)	9 (40.9)	4 (18.2)	3 (13.6)
Utstein					
Witnessed and shockable	14 (19.4)	9 (64.3)	11 (78.6)	10 (71.4)	10 (71.4)
Bystander witnessed and shockable	13 (18.1)	9 (69.2)	11 (84.6)	10 (76.9)	10 (76.9)
Hypothermia					
Field hypothermia	0 (0.0)	0 (NaN)	0 (NaN)	0 (NaN)	0 (NaN)
In-hospital hypothermia (among admitted patients)	10 (33.3)	--	--	8 (80.0)	6 (60.0)

Inclusion Criteria: An out-of-hospital cardiac arrest where resuscitation is attempted by a 911 responder (CPR and/or defibrillation). This would also include patients that received an AED shock by a bystander prior to the arrival of 911 responders.

NOTE: Analysis excludes patients with missing hospital outcome (N=0).

*Bystander CPR and bystander AED use calculations exclude 911 Responder witnessed events.

[†]CPC missing for 0 patients.

CARES Survival Report

Incident State: MI | Service Date: From 10/01/2005 Through 12/31/2017 | Presumed Cardiac Etiology

	Age = >18 years N = 19990				
	Total N (%)	Sustained ROSC (%)	Survival to hospital admission (%)	Survival to hospital discharge (%)	Survival to discharge with CPC 1 or 2 [†] (%)
Total	19990	5439 (27.2)	4890 (24.5)	1673 (8.4)	1346 (6.7)
Location of Arrest					
Home/Residence	13782 (68.9)	3583 (26.0)	3220 (23.4)	966 (7.0)	758 (5.5)
Nursing Home	3194 (16.0)	735 (23.0)	540 (16.9)	104 (3.3)	48 (1.5)
Public Setting	3014 (15.1)	1121 (37.2)	1130 (37.5)	603 (20.0)	540 (17.9)
Arrest Witnessed Status					
Unwitnessed	10577 (52.9)	1957 (18.5)	1710 (16.2)	403 (3.8)	284 (2.7)
Bystander witnessed	7401 (37.0)	2709 (36.6)	2436 (32.9)	961 (13.0)	793 (10.7)
911 Responder witnessed	2012 (10.1)	773 (38.4)	744 (37.0)	309 (15.4)	269 (13.4)
Bystander CPR*					
Bystander CPR	7902 (44.0)	2242 (28.4)	1955 (24.7)	741 (9.4)	593 (7.5)
No Bystander CPR	10074 (56.0)	2424 (24.1)	2191 (21.7)	623 (6.2)	484 (4.8)
Bystander CPR (excludes nursing home/healthcare facility events)	4825 (33.6)	1460 (30.3)	1345 (27.9)	578 (12.0)	491 (10.2)
No Bystander CPR (excludes nursing home/healthcare facility events)	9533 (66.4)	2296 (24.1)	2090 (21.9)	601 (6.3)	472 (5.0)
Initial Arrest Rhythm					
Shockable	4163 (20.8)	1805 (43.4)	1798 (43.2)	1038 (24.9)	922 (22.1)
Non-shockable	15827 (79.2)	3634 (23.0)	3092 (19.5)	635 (4.0)	424 (2.7)
AED Use					
Bystander AED use*	1525 (8.5)	497 (32.6)	438 (28.7)	206 (13.5)	173 (11.3)
Bystander AED use* (excludes nursing home/healthcare facility events)	324 (2.3)	156 (48.1)	159 (49.1)	115 (35.5)	109 (33.6)
Trained provider (First Responder) AED use	5044 (25.2)	1462 (29.0)	1254 (24.9)	450 (8.9)	376 (7.5)
Utstein					
Witnessed and shockable	2808 (14.0)	1350 (48.1)	1345 (47.9)	825 (29.4)	749 (26.7)
Bystander witnessed and shockable	2329 (11.7)	1089 (46.8)	1083 (46.5)	640 (27.5)	576 (24.7)
Hypothermia					
Field hypothermia	91 (0.5)	68 (74.7)	53 (58.2)	20 (22.0)	17 (18.7)
In-hospital hypothermia (among admitted patients)	2261 (46.2)	--	--	753 (33.3)	560 (24.8)

Inclusion Criteria: An out-of-hospital cardiac arrest where resuscitation is attempted by a 911 responder (CPR and/or defibrillation). This would also include patients that received an AED shock by a bystander prior to the arrival of 911 responders.

NOTE: Analysis excludes patients with missing hospital outcome (N=16).

*Bystander CPR and bystander AED use calculations exclude 911 Responder witnessed events.

[†]CPC missing for 0 patients.