

Supplemental Material

LONG-TERM SURVIVAL FOLLOWING OUT-OF-HOSPITAL CARDIAC ARREST

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Figure e1: Patient selection flow chart between January 2000 and December 2014.

Figure e2: Kaplan-Meier survival estimates across baseline characteristics.

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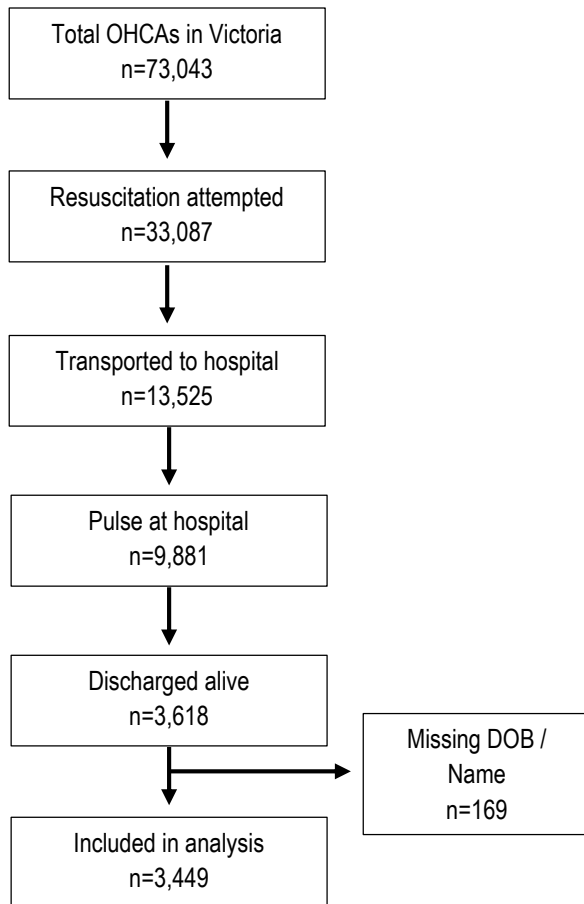
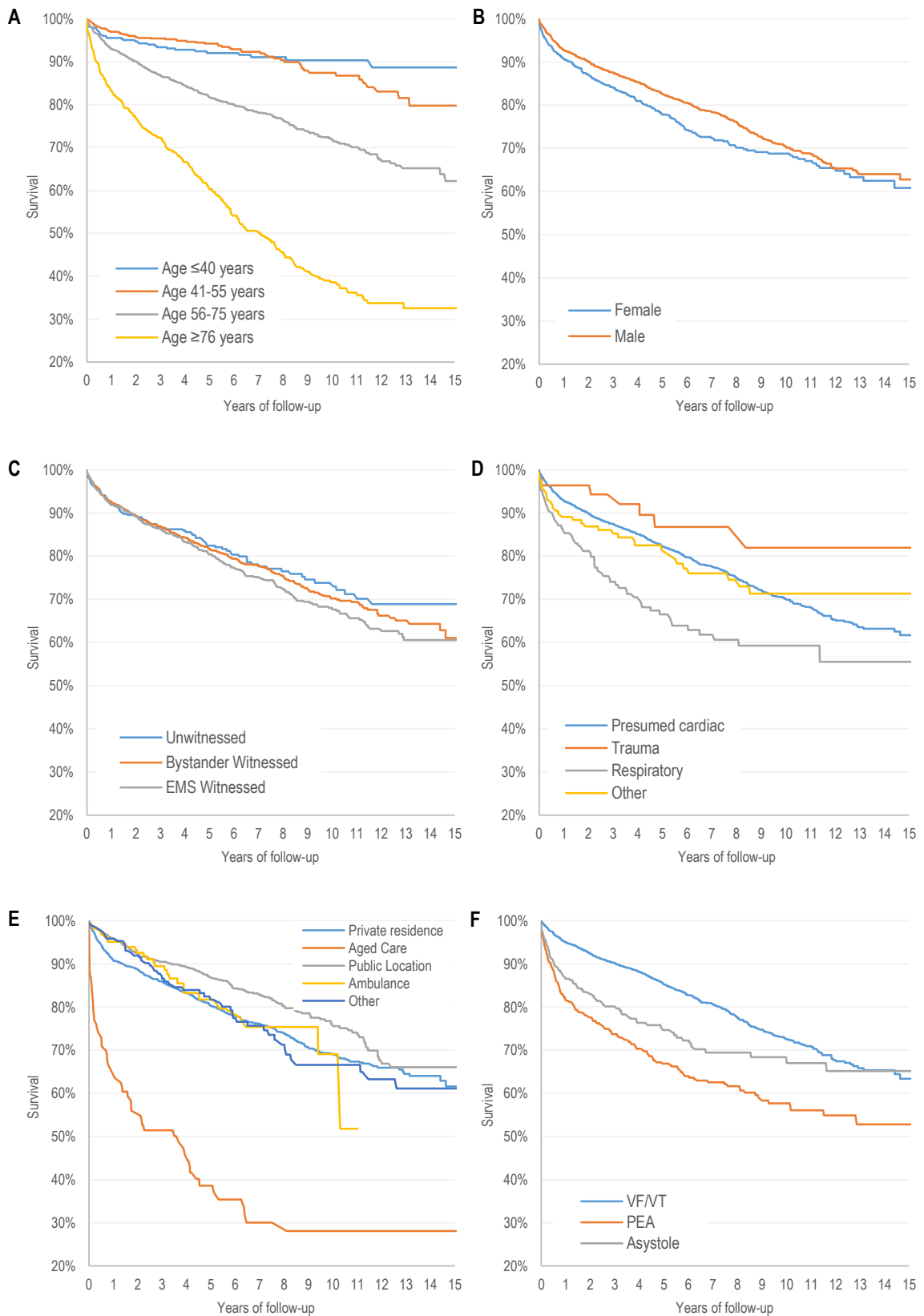
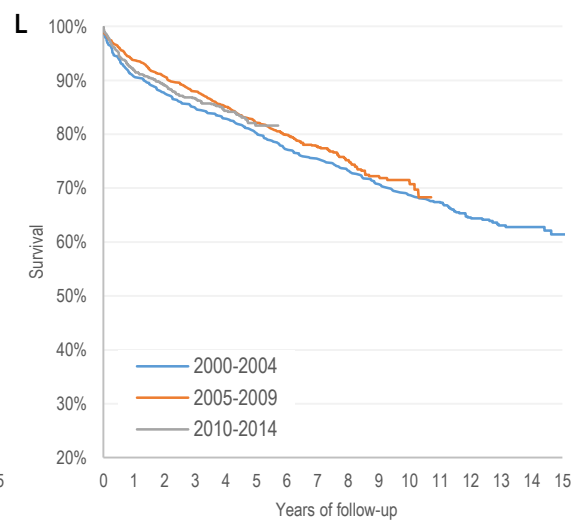
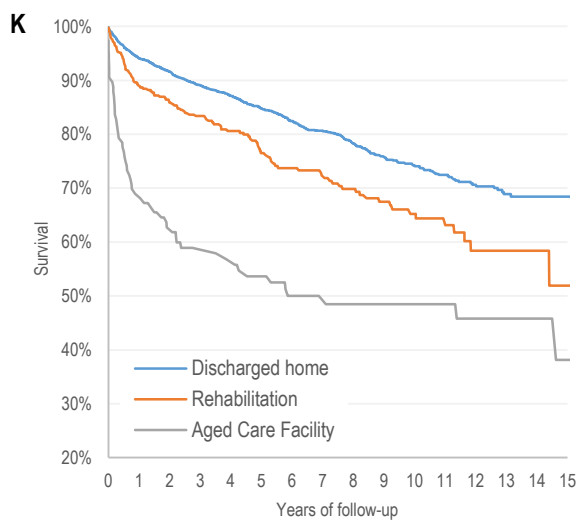
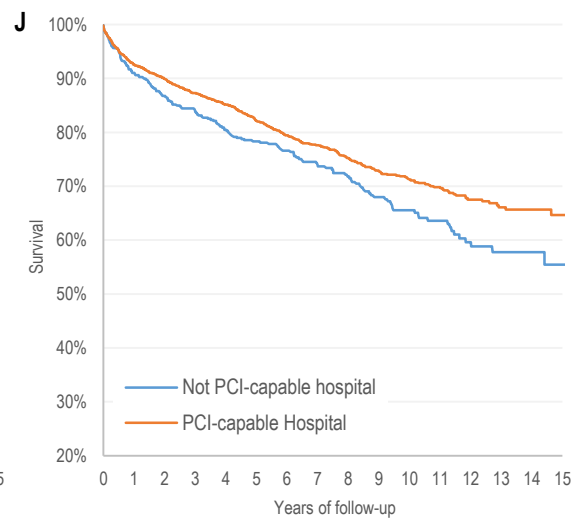
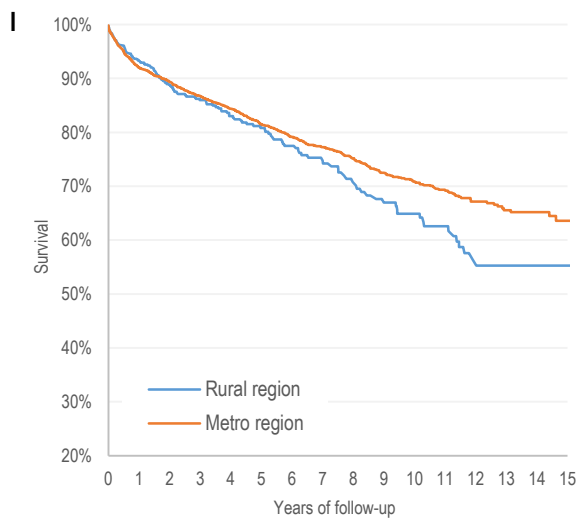
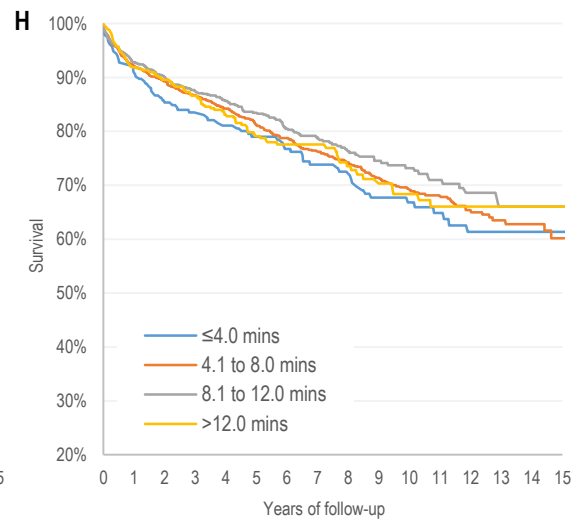
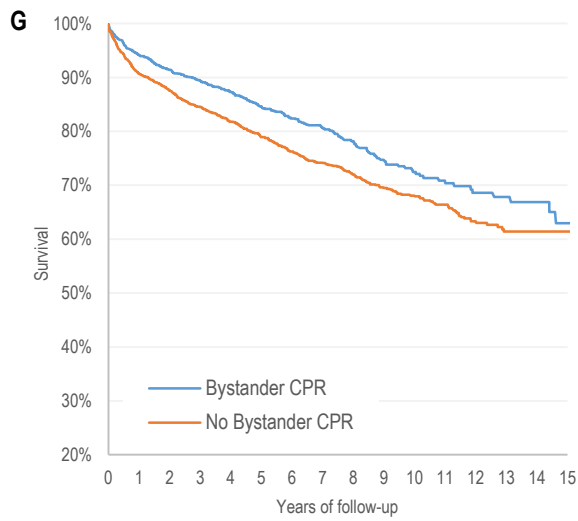


Figure e1: Patient selection flow chart between January 2000 and December 2014.

Figure e2: Kaplan-Meier survival estimates for: [A] age groups; [B] gender; [C] witness status; [D] arrest aetiology; [E] location of arrest; [F] initial arrest rhythm; [G] bystander CPR; [H] EMS response time; [I] regional area; [J] PCI capable hospital; [K] discharge direction, and; [L] year of arrest. Figures G and H exclude EMS witnessed arrests.





*Response time category & bystander CPR figures exclude EMS witnessed cases. Abbreviations: EMS, emergency medical services; CPR, cardiopulmonary resuscitation; VF/VT, ventricular fibrillation/ventricular tachycardia; PEA, pulseless electrical activity; PCI, percutaneous coronary intervention.

Table e1: Mean (95% CI) survival duration according to baseline characteristics

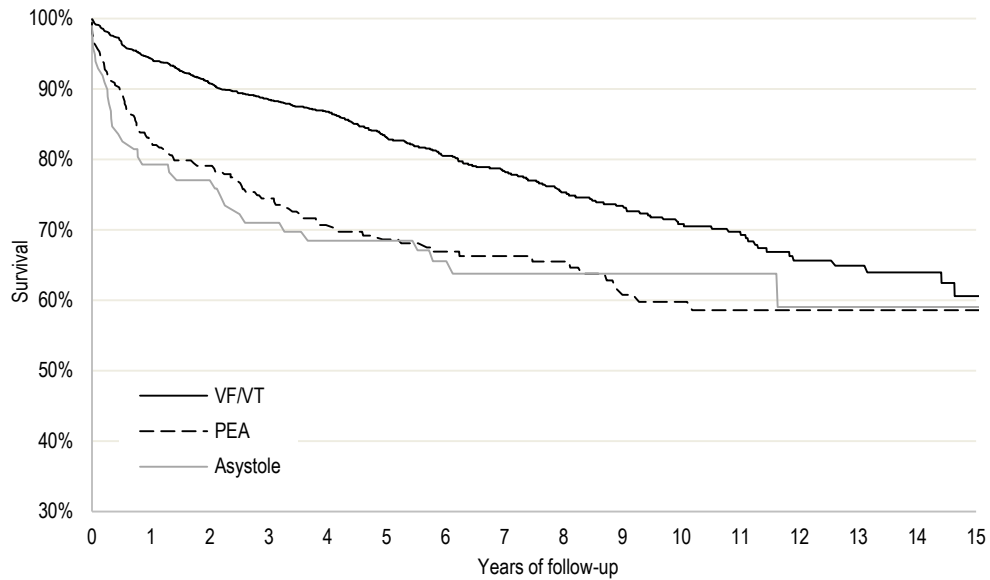
	N	Mean (95% CI)
Overall population	3,499	11.9 (11.7-12.1)
Age (years)		
≤40	426	14.3 (13.9-14.8)
41-55	791	14.0 (13.6-14.4)
56-75	1,539	12.1 (11.7-12.4)
≥76	693	8.1 (7.5-8.6)
Gender		
Male	2,576	12.0 (11.7-12.2)
Female	872	11.5 (11.1-12.0)
Aetiology		
Cardiac	2,983	12.0 (11.7-12.2)
Trauma / Hanging	55	13.6 (12.2-15.0)
Respiratory	178	10.0 (8.9-11.0)
Overdose / Poisoning	87	12.2 (10.9-13.4)
Other	146	12.1 (11.1-13.2)
Witness / Bystander CPR		
Not witnessed, no CPR	196	12.2 (11.3-13.0)
Bystander witnessed, no CPR	222	12.3 (11.4-13.2)
Not witnessed, CPR	538	11.1 (10.5-11.6)
Bystander witnessed, CPR	1,314	12.3 (11.9-12.7)
EMS witnessed	1,160	11.6 (11.2-12.0)
EMS response time (minutes)		
≤8	1,818	11.8 (11.5-12.1)
9-16	957	12.1 (11.6-12.6)
≥17	256	11.8 (10.9-12.6)
Arrest rhythm		
VF/VT	2,600	12.3 (12.1-12.6)
PEA	501	9.9 (9.3-10.6)
Asystole	268	11.4 (10.5-12.2)
Non-shockable (unspecified)	9	10.1 (6.3-13.9)
Location		
Private residence	1,837	11.8 (11.5-12.1)
Aged care facility / Supported accommodation	96	5.9 (4.5-7.3)
Public location	1,142	12.6 (12.2-12.9)
Ambulance	184	8.9 (8.2-9.6)
Other	190	11.7 (10.8-12.6)
Region		
Metropolitan	2,829	12.0 (11.8-12.3)
Rural	611	11.1 (10.5-11.7)
Receiving hospital		
PCI-capable	2,775	12.1 (11.8-12.4)
Non-PCI capable	672	11.3 (10.8-11.8)

Hospital discharge direction

<i>Home</i>	2,774	12.5 (12.3-12.8)
<i>Rehabilitation</i>	425	11.1 (10.4-11.7)
<i>Aged care facility / Supported accommodation</i>	116	8.0 (6.7-9.3)

Abbreviations: CI, confidence interval; CPR, cardiopulmonary resuscitation; EMS, emergency medical service; VF/VT, ventricular fibrillation/ventricular tachycardia; PEA, pulseless electrical activity; PCI, percutaneous coronary intervention.

Figure e3: Adjusted survival curves for: A 60 year old male who arrests at home of presumed cardiac aetiology, is witnessed by bystander, receives bystander CPR, has an eight minute EMS response time, is transported to a PCI-capable hospital in the metropolitan region, and is discharged home from hospital.



Abbreviations: CPR, cardiopulmonary resuscitation; EMS, emergency medical service; PCI, percutaneous coronary intervention; VF/VT, ventricular fibrillation/ventricular tachycardia; PEA, pulseless electrical activity.

Table e2: 12-month health-related quality of life outcomes

	n=1,026
Working prior to arrest, n (%)	534 (52.1)
<i>Missing</i>	3 (0.3)
Returned to work, n (%)*	388 (72.7)
<i>Missing*</i>	18 (3.4)
GOSE, n (%)	
<i>Upper good recovery</i>	314 (30.6)
<i>Lower good recovery</i>	333 (32.5)
<i>Upper moderate recovery</i>	165 (16.1)
<i>Lower moderate recovery</i>	74 (7.2)
<i>Upper severe disability</i>	49 (4.8)
<i>Lower severe disability</i>	82 (8.0)
<i>Vegetative state</i>	4 (0.4)
SF-6D, median (IQR)^	0.85 (0.71-0.92)
SF-12 MCS, median (IQR)^	56 (51-59)
SF-12 PCS, median (IQR)^	50 (40-56)
EQ-5D, median (IQR)	0.85 (0.73-1)
<i>Missing, n (%)</i>	12 (1.2)

*Proportion of patients working prior to arrest. ^Completed by patient responders only, n=785. Abbreviations: MCS, mental component summary; PCS, physical component summary.

Table e3: Mean (95% CI) survival duration after 12 months according to 12-month health-related quality of life outcomes

	N	Mean (95% CI)
Working prior to arrest		
<i>Working</i>	534	4.6 (4.5-4.6)
<i>Not working</i>	489	4.2 (4.1-4.3)
Returned to work*		
<i>Returned</i>	388	4.6 (4.6-4.7)
<i>Did not return</i>	128	4.5 (4.3-4.6)
GOSE, n (%)		
<i>Upper good recovery</i>	314	4.5 (4.4-4.6)
<i>Lower good recovery</i>	333	4.4 (4.3-4.5)
<i>Upper moderate recovery</i>	165	4.4 (4.3-4.7)
<i>Lower moderate recovery</i>	74	4.5 (4.4-4.7)
<i>Upper severe disability</i>	49	3.9 (3.5-4.3)
<i>Lower severe disability / Vegetative state</i>	86	3.9 (3.6-4.3)
SF-6D[^]		
<i>≤0.7144</i>	187	4.3 (4.1-4.5)
<i>0.7145-0.79</i>	124	4.4 (4.2-4.6)
<i>0.8-0.9219</i>	199	4.5 (4.3-4.6)
<i>0.922-1</i>	238	4.5 (4.4-4.6)
SF-12 MCS[^]		
<i>≤51</i>	182	4.5 (4.4-4.6)
<i>51.1-56</i>	158	4.5 (4.3-4.6)
<i>56.1-59</i>	219	4.5 (4.4-4.6)
<i>59.1-100</i>	226	4.4 (4.2-4.5)
SF-12 PCS[^]		
<i>≤40</i>	191	4.3 (4.1-4.5)
<i>40.1-50</i>	189	4.4 (4.2-4.5)
<i>50.1-56</i>	184	4.5 (5.3-5.6)
<i>56.1-100</i>	221	4.6 (4.6-4.7)
EQ-5D[†]		
<i>≤0.72</i>	233	4.1 (4.0-4.3)
<i>0.725-0.8479</i>	200	4.4 (4.2-4.5)
<i>0.848-1</i>	581	4.5 (4.5-4.6)

*Proportion of patients working prior to arrest. [^]Categories represent quartiles, completed by patient responders only, n=785. [†]Categories represent tertiles. Abbreviations: CI, confidence interval; MCS, mental component summary; PCS, physical component summary.