Supplementary Table S1 – Patient demographics, OHCA characteristics, and post-ROSC care according to neurological outcome.

	Good Neurological Outcome (n = 34)	**Poor Neurological Outcome** (n = 92)	**Significant Difference?** (p)
Patient Demographics			
Age (years)	58 (47 – 70)	64 (51 – 74)	0.141
Male Sex	24 (71%)	63 (68%)	0.820
OHCA Characteristics			
Witnessed	33 (97%)	70 (76%)	0.007
Bystander CPR	32 (94%)	78 (85%)	0.162
Bystander AED use	8 (24%)	6 (7%)	0.007
Shockable 1st Rhythm	31 (92%)	46 (50%)	<0.001
Changing Rhythm	4 (12%)	46 (50%)	<0.001
Adrenaline Given	8 (24%)	82 (89%)	<0.001
No Flow Time (minutes)	0 (0 – 1)	2 (0 – 6)	<0.001
Low Flow Time (minutes)	19 (15 – 25)	29 (20 – 39)	<0.001
CCT present CPR ongoing	3 (9%)	18 (20%)	0.151
Post-ROSC Characteristics			
CCT present post-ROSC	23 (68%)	39 (42%)	0.012
Any Reactive Pupils	29 (86%)	45 (49%)	<0.001
Any Respiratory Effort	21 (62%)	22 (24%)	<0.001
Pre-Hospital Anaesthesia	22 (65%)	30 (33%)	0.001
Pre-Hospital Vasoactive Drugs	14 (42%)	27 (29%)	0.208
Admission Biochemistry			
pH	7.29 (7.22 - 7.32)	7.11 (6.97 - 7.22)	0.013
$PaCO_2$ (kPa)	6.1 (5.7 - 6.7)	8.1 (6.9 - 10.0)	<0.001
Other			
MIRACLE2 score	1 (0 – 3)	5 (5 – 6)	<0.001

Abbreviations: out-of-hospital cardiac arrest (OHCA), return of spontaneous circulation (ROSC), critical care team (CCT), cardiopulmonary resuscitation (CPR), automated external defibrillation (AED)

Supplementary Table S2 – Patient demographics, OHCA characteristics, and post-ROSC care according to whether PHEA was delivered.

	PHEA (n = 52)	**Standard Care** (n = 74)	**Significant Difference?** (p)
Patient Demographics			
Age (years)	56 (48 – 69)	67 (56 – 77)	0.002
Male Sex	34 (65%)	53 (72%)	0.323
OHCA Characteristics			
Witnessed	43 (83%)	60 (81%)	0.818
Bystander CPR	49 (94%)	61 (82%)	0.050
Bystander AED use	8 (15%)	6 (8%)	0.201
Shockable 1st Rhythm	31 (60%)	46 (62%)	0.773
Changing Rhythm	20 (38%)	30 (41%)	0.814
Adrenaline Given	32 (62%)	58 (78%)	0.039
No Flow Time (minutes)	0 (0 – 4)	2 (0 – 5)	0.031
Low Flow Time (minutes)	21 (16 – 34)	27 (19 – 33)	0.246
CCT present CPR ongoing	16 (31%)	5 (7%)	<0.001
Post-ROSC Characteristics			
CCT present post-ROSC	52 (100%)	10 (14%)	<0.001
Any Reactive Pupils	34 (65%)	40 (54%)	0.203
Any Respiratory Effort	17 (33%)	26 (35%)	0.776
Pre-Hospital Vasoactive Drugs	34 (65%)	7 (9%)	<0.001
Admission Biochemistry			
pH	7.21 (7.07 – 7.29)	7.14 (6.99 – 7.25)	0.077
$PaCO_2$ (kPa)	7.3 (5.8 – 8.1)	8.0 (6.6 – 9.8)	0.044
Other			
MIRACLE2 score	4 (1 – 6)	5 (3 – 6)	0.009
Good Neurological Outcome	22 (42%)	12 (16%)	0.001

Abbreviations: out-of-hospital cardiac arrest (OHCA), return of spontaneous circulation (ROSC), pre-hospital emergency anaesthesia (PHEA), critical care team (CCT), cardiopulmonary resuscitation (CPR), automated external defibrillation (AED)