

Table 2. Overview of included publications

Author	Year	Country	Study design	Population	Critical care	Comparator	Adjustments	Independent variables	Results																		
Mitchell	Published 1997	USA and UK	Prospective, two single EMS	1029 OHCA, urban and suburban	UK physicians with full resuscitation equipment (n=306)	US ALS-Paramedics (n=723)	None	N/A	Survival to hospital discharge UK (physicians) 12.4% US (paramedics) 7.2%																		
Olasveengen	2003-2008	Norway	Prospective, single EMS	1128 OHCA, regional urban and suburban	Anaesthesiologists, board certified or last year of training (n=223)	ALS-Paramedics with yearly recertification (n=741)	Multiple logistic regression	Initial rhythm Therapeutic hypothermia Intubation Age Time from arrest to ALS Ambulance witnessed	CPC1/2 at hospital discharge OR 1.35 (0.75 to 2.60, p=0.36)																		
Yasunaga	2005-2007	Japan	Prospective, nationwide	95,072 bystander-witnessed OHCA across Japan, with and without BCPR	Physicians with critical care capabilities - Without BCPR (n=1,597) - With BCPR (n=1,961)	ELSTs trained to ALS level - Without BCPR (n=53,482) - With BCPR (n=38,077)	Logistic regression	Age Gender EMS response time Cardiac aetiology BCPR Initial rhythm	1-month survival (OR) <table border="1"> <thead> <tr> <th></th> <th>No BCPR</th> <th>BCPR</th> </tr> </thead> <tbody> <tr> <td>ELSTs</td> <td>OR 1 (reference)</td> <td>OR 1.51 (1.43-1.59)</td> </tr> <tr> <td>Physicians</td> <td>OR 1.63 (1.39-1.92)</td> <td>OR 2.17 (1.89-2.49)</td> </tr> </tbody> </table> CPC1 at 1-month (OR) <table border="1"> <thead> <tr> <th></th> <th>No BCPR</th> <th>BCPR</th> </tr> </thead> <tbody> <tr> <td>ELSTs</td> <td>OR 1 (reference)</td> <td>OR 2.23 (2.05-2.42)</td> </tr> <tr> <td>Physicians</td> <td>OR 1.18 (0.86-1.61)</td> <td>OR 2.80 (2.28-3.43)</td> </tr> </tbody> </table>		No BCPR	BCPR	ELSTs	OR 1 (reference)	OR 1.51 (1.43-1.59)	Physicians	OR 1.63 (1.39-1.92)	OR 2.17 (1.89-2.49)		No BCPR	BCPR	ELSTs	OR 1 (reference)	OR 2.23 (2.05-2.42)	Physicians	OR 1.18 (0.86-1.61)	OR 2.80 (2.28-3.43)
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Hamilton	2005-2012	Denmark	Retrospective, nationwide	21,165 OHCA, nationwide, including trauma	Specialists in anaesthesiology or intensive care (n=7,854)	BLS and ALS paramedics as well as nurse anaesthetists (n=7,854)	Propensity score matching	Gender Age Location (home or public) BCPR Initial rhythm Witnessed event Geographical location EMS response time Charlson comorbidity index	1-month survival OR 1.18 (1.04-1.34) 1-year survival OR 1.13 (0.99-1.29)																		

Table 2. Overview of included publications (continued)

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Hiltunen	2010	Finland	Prospective, multiple EMS, urban and rural	614 OHCA, regional urban and rural, all ages and aetiologies	Specialists in anaesthesiology or intensive care (n=249)	ALS-Paramedics (n=246) BLS-Paramedics (n=119)	Multivariate analysis	Gender Initial rhythm Location (home or public) Witnessed event OHCA in presence of EMS Cardiac aetiology Dispatcher-recognised OHCA BCPR ALS- or BLS-paramedics Intubation or SAD Geographical location	Survival to hospital discharge OR 5.05 (2.94–8.68) 1-year survival OR 2.57 (1.22–5.43)
von Vopelius-Feldt	2012-2014	UK	Retrospective, single EMS	1851 OHCA, regional urban and rural	Team of critical care paramedics and prehospital critical care physicians (n=165)	ALS-Paramedics (n=1,686)	Multiple logistic regression	Age Location (home, public or nursing home) Witnessed event BCPR EMS response time Initial rhythm	Survival to hospital discharge OR 1.54 (0.89 to 2.67)

OHCA: Out-of-hospital cardiac arrest, ALS: Advanced life support, OR: Odds ratio (95% confidence interval), CPC: Cerebral performance category, BCPR: Bystander CPR, ELST: Emergency Life Saving Technicians, BLS: Basic life support, SAD: Supraglottic airway device.