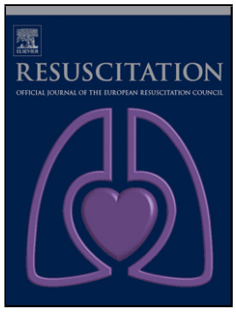

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Impact of Adult Advanced Cardiac Life Support Course Participation on Patient Outcomes – A Systematic Review and Meta-analysis

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Abstract

Objectives: The objective of this study was to evaluate the impact of the prior participation of one or more members of the adult resuscitation team in an accredited advanced life support course on patient outcomes (return of spontaneous circulation, survival to discharge, survival to 30 days, and survival to 1 year).

Methods: A systematic search of Medline, CINAHL, Embase, ERIC, and Cochrane databases was conducted through 6 March 2018. We included randomised and observational studies in any language. Reviewers independently extracted data on study design and outcomes. The GRADE approach was used to evaluate the overall quality of evidence for each outcome.

Results: Nine hundred and ninety-two articles were identified of which eight observational studies were included. No randomised controlled trials were identified. Meta-analysis showed an association between participation of healthcare personnel in an advanced life support course and return of spontaneous circulation [odds ratio (OR) 1.64; 95% CI 1.12-2.41, risk difference (RD) 0.10 (95% CI 0.03-0.17)]. Life support training showed a significant absolute effect on patient survival to discharge [RD 0.10, 95% CI 0.01-0.18], but non-significant relative effect [OR 2.12; 95% CI 0.98-4.57]. Data from one