Extracorporeal membrane oxygenation (ECMO) assisted cardiopulmonary resuscitation or uncontrolled donation after the circulatory determination of death following out-of-hospital refractory cardiac arrest — An ethical analysis of an unresolved clinic

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)

ID 3693610
Author(s) Dalle Ave, Anne; Shaw, David; Gardiner, Dale
Author(s) at UniBasel Shaw, David ;
Year 2016
Title Extracorporeal membrane oxygenation (ECMO) assisted cardiopulmonary resuscitation or uncontrolled donation after the circulatory determination of death following out-of-hospital refractory cardiac arrest — An ethical analysis of an unresolved clinical dilemma
Journal Resuscitation
Volume 108
Pages / **Article-Number** 87-94
BACKGROUND: The availability of extracorporeal membrane oxygenation (ECMO) assisted cardiopulmonary resuscitation (E-CPR), for use in refractory out-of hospital cardiac arrest (OHCA), is increasing. In parallel, some countries have developed uncontrolled donation after circulatory determination of death (uDCDD) programs using ECMO to preserve organs for transplantation purposes. AIM: When facing a refractory OHCA, how does the medical team choose between initiating ECMO as part of an E-CPR protocol or ECMO as part of a uDCDD protocol? METHODS: To answer these questions we conducted a literature review on E-CPR compared to uDCDD protocols using ECMO and analyzed the raised ethical issues. RESULTS: Our analysis reveals that the inclusion criteria in E-CPR and uDCDD protocols are similar. There may be a non-negligible risk of including patients in a uDCDD protocol, when the patient might have been saved by the use of E-CPR. CONCLUSION: In order to avoid the fatal error of letting a saveable patient die, safeguards are necessary. We recommend: (1) the development of internationally accepted termination of resuscitation guidelines that would have to be satisfied prior to inclusion of patients in any uDCDD protocol, (2) the choice regarding modalities of ongoing resuscitation during transfer should be focused on the primary priority of attempting to save the life of patients, (3) only centers of excellence in life-saving resuscitation should initiate or maintain uDCDD programs, (4) E-CPR should be clinically considered first before the initiation of any uDCDD protocol, and (5) there should be no discrimination in the availability of access to E-CPR.
Publisher Elsevier
ISSN/ISBN 0300-9572 ; 1873-1570
edoc-URL http://edoc.unibas.ch/51862/
Full Text on edoc No;
Digital Object Identifier DOI 10.1016/j.resuscitation.2016.07.003
PubMed ID http://www.ncbi.nlm.nih.gov/pubmed/27449821
ISI-Number WOS:000389509900018
Document type (ISI) Journal Article