Review of ECMO in Out-of-Hospital Cardiac Arrest

While the role of extracorporeal membrane oxygenation (ECMO) for in-hospital cardiac arrest has good evidence, the benefit of using it for out-of-hospital cardiac arrest (OHCA) is less clear.

Favrizio Cirillo, Department for Anaesthesiology and Intensive Care Medicine, University Hospital Cologne, Germany, and colleagues have recently published a narrative review of the literature on extracorporeal life support strategies and management for OHCA. The literature review covers 2010 until 31 May 2015, and is published in Trends in Anaesthesia & Critical Care.

The review explores and discusses:

- strategy - inclusion and exclusion criteria, location, best timing and teams and technique
- quality of resuscitation - in terms of mortality and/or neurological sequelae
- complications

They also review barriers for favourable outcome and the further use of ECLS for refractory OHCA adult patients for donation after circulatory death.

See Also: Chain of Survival after Out-of-Hospital Cardiac Arrest

Treatment of OHCA remains challenging they conclude, and patients who experience OHCA have a low probability of survival with good neurological function.

They write: “For the future, evidence-based criteria to include patients into an ECLS protocol and to estimate the success of ECLS after refractory cardiac arrest are highly desirable to avoid futile and expensive invasive manoeuvres.”

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