

Advanced Resuscitation Training Program for Cardiac Arrest Patients

Tech ID: 22977 / UC Case 2013-042-0

BACKGROUND

There is a general need to improve the efficacy of the resuscitation programs and the survival rate of patients undergoing cardiac arrest.

TECHNOLOGY DESCRIPTION

The new Advanced Resuscitation Training Program (ART) developed by UCSD researchers maintains the same critical objective as that of the standard AHA/ILCOR guideline, such as minimal interruptions in the chest compressions, controlled ventilations, use of pressor agents to augment perfusion during chest compressions, direct counter-shock of VG/PVT following periods of compression, use of anti-arrhythmic agents to increase defibrillation success and prevent defibrillation, and appropriate application of advanced procedures such as defibrillation, endotracheal intubation, vascular access and rhythm analysis. Various parameters of the standard AHAH/ILCOR guidelines have been altered in ART, such as the initial assessment, deeper compressions, the ratio of continuous compressions to synchronous ventilations, pressor therapy, defibrillation, pre- and post-shock pauses, filtered ECG, end-tidal CO₂, and waveform pulse oximetry, and emphasis on early detection.

APPLICATIONS

This program has been extensively implemented and tested in the in-patient population, and can potentially be applied to outpatient population as well.

ADVANTAGES

The ART training program has been shown to increase the confidence of the trainees' in implementation, decrease non-ICU arrests without being at the expense of an increase in ICU arrests, increase survival and discharge rate as well as good neurologic outcomes.

RELATED MATERIALS

- ▶ [Davis, DP. "A New Resuscitative Protocol", Journal of emergency Medical Services, September 2010 Issue. - 09/01/2010](#)

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	10,296,529	05/21/2019	2013-042

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OTHER INFORMATION

CATEGORIZED AS

- ▶ **Medical**
 - ▶ Disease: Cardiovascular and Circulatory System

RELATED CASES

2013-042-0