

**ATHENS CARDIOLOGY UPDATE 2010**

# Chest-Compression Alone Cardiopulmonary Resuscitation: Newer Data for a More Practical Approach/ Cardio-Cerebral Resuscitation

Dimosthenis Avramidis, MD,<sup>1</sup> Panagiotis Strepelas, MD,<sup>2</sup> John  
Papagiannis, MD,<sup>1</sup> Antonis S. Manolis, MD<sup>3</sup>

<sup>1</sup>*Pediatric Cardiology Department,  
Mitera Children's Hospital*  
<sup>2</sup>*2<sup>nd</sup> Cardiology Department, Athens  
Naval Hospital*  
<sup>3</sup>*1<sup>st</sup> Cardiology Department,  
Evangelismos General Hospital of  
Athens*

**KEY WORDS:** *sudden cardiac death;  
out of hospital cardiac arrest; chest-  
compression alone cardio pulmonary  
resuscitation; cardio-cerebral  
resuscitation*

**ABBREVIATIONS**

AED= automatic external defibrillator  
AHA= American Heart Association  
CC-CPR= chest-compression cardio  
pulmonary resuscitation  
CPR= cardio pulmonary resuscitation  
EMS= emergency medical services  
OHCA= out of hospital cardiac arrest  
SCD= sudden cardiac death

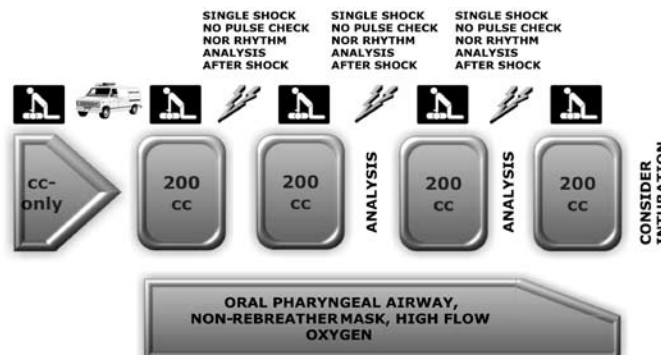
*Correspondence to:*  
Dimosthenis Avramidis, MD  
Mitera Children's Hospital  
6 Erythrou Stavrou str.  
15123 Maroussi Athens, Greece  
Phone: +30-210-6869788  
Fax: +30-210-6899405  
E-mail:  
dimosthenisavramidis@yahoo.gr

**ABSTRACT**

**BACKGROUND:** Sudden cardiac death (SCD) is a leading cause of mortality in the industrialized nations and, accordingly, is a major public health problem. Despite the guidelines and their updates, the survival rate of victims of out of hospital cardiac arrest (OHCA) remains disappointingly low. There are many contributors to poor survival outcome of victims with OHCA. An improper resuscitation algorithm seems to be the major contributor. Chest-compression alone cardio pulmonary resuscitation (CC-CPR), and cardio-cerebral resuscitation (CCR), seems an attractive alternative to conventional CPR.

**METHODS & RESULTS:** Reviewing the recent literature, cardiac-only resuscitation emerges as an attractive alternative to conventional CPR, as this simpler technique of CPR, in which continuous chest compressions are provided without rescue breathing avoids the need for mouth-to-mouth ventilation. Under the weight of evidence supported by several recent studies, the AHA issued a science advisory for the public recommending immediate activation of emergency medical services (EMS) after the victim's collapse and high quality chest compression regarding location and depth with minimum interruptions. Bystanders not trained in CPR are encouraged to initiate immediately hands-only CPR and continue with compressions until an AED is available or EMS arrives at the scene.

**CONCLUSION:** CC- CPR and CCR is not inferior to conventional CPR but also promises a survival benefit for victims of OHCA.



**FIGURE 1.** Cardiocerebral resuscitation protocol for out of hospital cardiac arrest. (cc: cardiac compressions).