

EMS ISSUES - NEW RESUSCITATION GUIDELINES, AN INTERNATIONAL PERSPECTIVE

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Abstract

The simultaneous publication of European Resuscitation Council (ERC) and American Heart Association (AHA) Guidelines for cardiopulmonary resuscitation (CPR) updates those published in 2005.¹

Like the 2005 guidelines, these 2010 guidelines are based on the most recent International Consensus on CPR Science with Treatment Recommendations (CoSTR),² which are the results of systematic reviews of all available evidences relating to CPR.

This abstract provides the essentials of the main guideline changes since 2005.

Without CPR survival rate after cardiac arrest (CA) decreases by 7-10% per minute. Therefore instant and correct by stander CPR is crucial to establish a successful chain of survival. As in the past, 2010 CPR recommendations have been challenged with evidence based data to improve CPR quality.

The 2010 guidelines are characterized by a strategy of simplification of recommendations and steps of action.

The key message within BLS consists of “compression first”. Rescuers should begin CPR if the victim is unresponsive and not breathing (ignoring occasional gasps). Gaspings should not prevent initiation of CPR. Untrained rescuers will be instructed by EMS dispatcher’s phone instruction. The new guidelines also line out the importance of team work and cooperation, as CPR mainly is performed by multiple rescuers and fatigue in CPR effectiveness is a problem with regard to outcome quality of life after ROSC. Of all treatment steps in cardiac arrest, only high quality chest compression with minimal interruption, if possible in combination with ventilation and early defibrillation (if indicated) are Class 1 recommendations.

The 2010 guidelines of ERC and AHS are based on the same raw material (ILCOR CoSTR). The presentation of the content is different in some aspects and the content was slightly modified taking into account “geographic, economic and system differences in practice, availability of devices and drugs and training”. Thiese slight differences cannot affect prognosis after cardiac arrest while rescuers’ training, education and refreshing remain the real key factors to assure a better survival.

1. Nolan J. European Resuscitation Council Guidelines for resuscitation 2005. Section 1. Introduction. Resuscitation 2005;67(Suppl. 1):S3–6.
2. Nolan JP, Hazinski MF, Billi JE, et al. International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations. Part 1. Executive Summary. Resuscitation 2010; 81:1219-1276