A Collection of Abstracts from Scientific Papers ...

Research Supporting Q-CPR (Quality CPR) Measurement and Feedback Technology


Please go to this link to view in detail; specifically note the following sections and abstracts:

"Quality of CPR by Healthcare Professionals"
Section begins on Page 15

Page 16
Abstract:
Chest Compression Rates During Cardiopulmonary Resuscitation are Suboptimal - A Prospective Study During In-Hospital Cardiac Arrest
Conclusion:
In-hospital chest compression rates were significantly below recommended international CPR guidelines. The suboptimal number of chest compressions per minute correlates to poor ROSC (Return of Spontaneous Circulation) and survival.

Page 17
Abstract:
Quality of Cardiopulmonary Resuscitation During In-Hospital Cardiac Arrest
Conclusion: The results from the study revealed very poor CPR quality in the in-hospital setting. That is, too few and shallow chest compressions, and too many ventilations per minute.

Page 18
Abstract:
Quality of Cardiopulmonary Resuscitation During Out-of-Hospital Cardiac Arrest
Conclusion:
Over the entire episode of CPR, there were no chest compressions delivered nearly half of the time. When delivered, just around one third adhered to recommended CPR guidelines.
"Quality of CPR Can Be Improved by Feedback"
Section begins on Page 25

Page 26
Conclusion: Feedback can (almost immediately) improve the basic CPR skills performance of paramedic students. In addition, when students begin with feedback, they attain a high level of performance and maintain that high level even when feedback is taken away.

Page 27
Abstract: Retention of Basic Life Support Skills Six Months After Training with an automated Voice Advisory Manikin System Without Instructor Involvement
Conclusion: The use of computer-based Voice Advisory Manikin (VAM) feedback system can improve basic life support CPR skills immediately. Moreover, VAM can promote better long term retention with CPR overtraining.

Page 30
Abstract: The Effect of Voice Advisory Manikin (VAM) System on CPR Quality Among Prehospital Providers
Conclusion: Over a period of 3 minutes one-rescuer CPR, verbal feedback prevents decrease of chest compression and ventilation performance.

Page 31
Abstract: Better Adherence to the Guidelines During Cardiopulmonary Resuscitation Through the Provision of Audio-Prompts
Conclusion: Feedback can improve the adherence to CPR guidelines in the clinical setting. The authors’ state: "To the best of our knowledge, our study is the first to indicate that audio-prompt techniques applied in actual resuscitation can improve adherence to the guidelines on chest compression rates, intubation time and hands-off periods."

Page 33
Abstract: Twelve-Month Retention of CPR Skills with Automatic Correcting Verbal Feedback
Conclusion: A computer based voice advisory feedback system can improve the basic life support CPR skills on a manikin with no worsening in feedback supported performance after 12 months.