ICU
MANAGEMENT & PRACTICE

Circulation 62% More Likely to Return with ZOLL AutoPulse

ZOLL® Medical Corporation, a manufacturer of medical devices and related software solutions, announced on June 6, 2013, that a paper just published in *Critical Care Medicine* reported the likelihood of achieving a return of spontaneous circulation (ROSC) after sudden cardiac arrest (SCA) is 62% greater when the AutoPulse® Non-invasive Cardiac Support Pump is used to deliver CPR chest compressions.

The paper is a meta-analysis of changes to ROSC rates from 12 previously published human studies that compared the use of manual and mechanically delivered chest compressions during out-of-hospital cardiac arrests (OHCA). Collectively these studies included 6,538 patients. The analysis showed use of the AutoPulse, which delivers circumferential compressions with a load-distributing band, was 62% more likely to produce ROSC. In contrast the analysis demonstrated that a piston-driven, sternal compression technology had no incremental impact on ROSC rates.

Commenting on the paper, lead author Mark Westfall, DO, FACEP, FACP, Theda Clark Regional Medical Center, Neenah, Wis., said, “This analysis contributes greatly to our understanding of the impact mechanical CPR systems have in the pre-hospital setting. The use of ROSC as a primary endpoint is most appropriate in this environment. Whereas survival is an endpoint influenced by a variety of factors that aren’t necessarily related to the quality of CPR performed in the field, the ability to achieve ROSC in the pre-hospital setting is closely linked to the delivery of high-quality chest compressions.”

“This is the first paper that looks at the efficacy of multiple mechanical CPR technologies,” said Jonathan A. Rennert, President of ZOLL. “The analysis produced two major findings. First, it showed a 62% greater likelihood of achieving ROSC with the AutoPulse, while a parallel analysis showed no change in ROSC when a piston-driven device was used to provide chest compressions. Secondly, the analysis confirms expert opinion that findings from one mechanical CPR technology cannot be applied to another.”

The AutoPulse is the only mechanical CPR system to have shown improved survival in comparative clinical trials. The AutoPulse more than tripled survival compared to typical CPR during witnessed shockable arrests1. It uses the load-distributing LifeBand® to deliver unprecedented circulation by squeezing the entire chest to improve blood flow to a patient’s heart and brain during sudden cardiac arrest. The AutoPulse delivers high-quality, uninterrupted CPR chest compressions to maintain myocardial and cerebral perfusion.

Cardiac arrest is a substantial public health problem killing approximately 325,000 persons each year in the U.S. and Canada alone and as many as a million worldwide. Survival is poor in most communities at less than eight percent, and improvements in resuscitation practices could save as many as half of these victims.

Source: BusinessWire

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