Top Ten Things to Know
Resuscitation Education Science: Educational Strategies to Improve Outcomes From Cardiac Arrest

All of this is a guide, not a requirement.

1. Despite ongoing advances in resuscitation science, cardiac arrest survival rates remain suboptimal for both in-hospital and out-of-hospital settings.

2. Major gaps exist in the delivery of optimal clinical care (e.g., poor-quality CPR or no CPR in the out-of-hospital setting) for individuals with cardiac arrest, despite millions being trained each year in CPR.

3. This statement describes the existing literature supporting the various elements of resuscitation education and knowledge translation, examines best practices in education and applies the learning in new resuscitation science, and offers suggestions for improvement in training on eight key elements.

4. One key educational element is mastery learning and deliberate practice, which means practice until learners demonstrate mastery of skills. The second educational element is spaced practice, which emphasizes shorter, more frequent learning sessions.

5. Two additional key elements include the information and experience while learning. Contextual learning uses the “real world” training experiences recognized by learners. Feedback and debriefing includes providing opportunities for reflection and feedback.

6. Additional elements include Assessment, which involves measuring competency throughout a course with a variety of tools, as well as Faculty Development, which includes continuous coaching and training of instructors.

7. Innovative education strategies gained by exploration of gamification and use of social and digital platforms to make learning “stick” is another important element.

8. A final key element is Knowledge Translation and Implementation, which involves localizing programs to fit learners’ needs.

9. The goal of this statement is to provide the resuscitation community with guidance on the domains of mastery learning and deliberate practice, spaced learning, contextual learning, assessment, feedback and debriefing, educational innovation, faculty development, and knowledge translation and implementation. This emphasis can improve translation of skills to real-world environments and ultimately enhance survival after cardiac arrest.

10. Application of effective resuscitation education strategies and knowledge translation within institutions and communities may increase resuscitation quality and subsequently improve survival after cardiac arrest.

Cheng A, Nadkarni VM, Mancini MB, Hunt EA, Sinz EH, Merchant RM, et al; on behalf of the American Heart Association Education Science Investigators; and on behalf of the American Heart Association Education Science and Programs Committee, Council on Cardiopulmonary, Critical Care, Perioperative and Resuscitation; Council on Cardiovascular and Stroke Nursing; and Council on Quality of Care and Outcomes Research. Resuscitation education science: educational strategies to improve outcomes from cardiac arrest: a scientific statement from the American Heart Association [published online ahead of print June 21, 2018]. Circulation. DOI: 10.1161/CIR.0000000000000583.