

Online Training to Revolutionize CPR Instruction

Change is good. Or at least, that's the saying. Most would definitely agree that some change is not good. Rising prices, economic collapse, mass layoffs, all are changes that are not well received. Most change, however, receives mixed reactions, and as a result controversy ensues.

In recent years the topic of online CPR certification has become a rising area of controversy. This is especially true in the medical field where most professionals are required to have such certification and renew it every 2 years. While the general authority on CPR (the procedure) is ILCOR, (<http://www.ilcor.org/en/about-ilcor/about-ilcor/>) there is no overseeing authority on how CPR should be taught. As it turns out, a company can select which CPR certifications it will choose to accept or reject, ultimately leaving the decision up to individual companies and industry trendsetters.

So, as in most cases of controversy, you have your two sides with their differing opinions. On one side you have the American Heart Association, American Red Cross, and ASHI, each of which makes a large portion of its income from in-classroom CPR training. On the other side you have the online CPR certification companies ProCPR.org, CPRtoday and Emergency University, who appear to be the 3 largest. Clearly, the first three traditional providers mentioned are by far the most recognized and certainly hold the majority of CPR certification market share. Although they are smaller, the online sectors appear to be experiencing more growth as (1) more people find out they exist and (2) more employers accept the idea of online certification for their employees.

Is online certification effective? First it is important to make a couple of distinctions where these two sides differ. Both ProCPR.org and Emergency University support the idea that in-classroom or blended training (learning the skills online then reviewing them with a live instructor and a manikin) is necessary for first time learners of CPR. On the same note, the AHA and ARC have conceded that multi-media training is effective and have published their own blended programs. Where the two sides differ is in the application of online-only CPR training (without hands-on manikin practice). Online companies, especially CPR Today and ProCPR.org, claim that people who have been certified multiple times, especially medical professionals, do not require hands-on practice to effectively renew their CPR certification. The big three disagree, and that is where the controversy takes place.

Why is in-classroom training necessary for medical professionals? While I couldn't find any official statement, I have found that people of the same mindset (AHA instructors) commonly raised the following objections: (1) Hands-on portion is necessary for the retention of the CPR skill; (2) students are unable to ask questions if there is no instructor present; (3) online companies are unable to verify that the student who is getting the card is the same that reviewed the materials and passed the test.

What do online companies have to say? It turns out that these online companies are not run by internet gurus running the operation from their basement. Rather, the founders of these companies are M.Ds, E.M.Ts (http://www.procpr.org/about_us), and even past (and current) AHA or ARC instructors. They tend to make two counter claims: (1) Online/multimedia

education and training is effective; (2) CPR is a relatively simple skill for veterans and especially medical professionals. A couple of the online companies also supply complementary 3rd party research to back up these claims.

To support online training of CPR, a study was done in which three different groups of high school students were given CPR and AED training. Each group's training method differed. The first group had computer-based training alone (45 min.). The second group had computer-based training (45 min.) with instructor-led hands-on practice (45 min.). The last group had DVD-based training (45 min.) with instructor-led hands-on practice (45 min.) No option exceeded 90 minutes total instruction time. It was observed that all 3 instructional options resulted in approximately equal performance when evaluated immediately after training, with some advantage to those options that included hands-on training in addition. The initially observed advantage conferred by hands-on practice was significantly reduced when trainees were evaluated two months after the initial training. The authors concluded that interactive computer-based self-instruction alone was sufficient to teach CPR and AED knowledge and AED actions to high school students. (<http://www.ncbi.nlm.nih.gov/pubmed/16678958>)¹⁶ Reder S., Cummings P. *Comparison of three instructional methods for teaching cardiopulmonary resuscitation and use of an automatic external defibrillator to high school students. Resuscitation. Jun 2006;69(3):443-53.*

To support the low difficulty claim, researchers demonstrated that middle school students could learn and retain CPR and AED knowledge and skills utilizing a one-hour curriculum. In Phoenix, Arizona, 33 eighth grade public school students completed a one-hour condensed training program to learn continuous chest compression CPR and AED skills. Of the class, 88% of students demonstrated proficiency in a mock adult cardiac arrest scenario. At 4 weeks, 85% of students demonstrated skill retention and similar scenario testing. 8th grade students demonstrated adequate proficiency in performing AED and CPR in a mock cardiac arrest scenario after completing a one-hour condensed training program.

(<http://www.ncbi.nlm.nih.gov/pubmed/16987582>)

Kelly J, Richman PB, Ewy GA, et al. Eighth grade students become proficient at CPR and use of an AED following a condensed training programme. Mayo Clinic Arizona, Department of Emergency Medicine Resuscitation. 2006 Nov;71 (2):229-36.

While online companies willingly provide this information and more, it is clear that they still have some way to go in convincing a public that knows and recognizes names like the American Heart and the American Red Cross. However, history has proved that bigger doesn't mean invincible and a near monopoly today can be a highly competitive industry tomorrow. Since the overall goal is to save people's lives, it should also be recognized that the convenience of learning CPR from virtually anywhere with an Internet connection is bound to entice more people to learn CPR and hopefully save more lives.

Related sites:

www.procpr.org

www.cprtoday.com

www.emergencyuniversity.com

www.americanheartassociation.com

To view examples of online CPR training videos:

<http://www.procpr.org/training>