ALERT protocol: Efficiency of an e-learning training in a non-Advanced Medical Priority Dispatch System (AMPDS) Emergency Medical Services centres

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Objectives

The dispatcher's window is a precious time period during which dispatchers may help bystanders make a dramatic difference in victim's outcome¹. We previously demonstrated that the ALERT algorithm, a simple and effective compression-only phone CPR protocol, has the potential to help bystanders initiate CPR², ³. However, using the ALERT protocol requires knowledge acquisition and continuous dispatcher's training. The present study compares the cost-effectiveness of e-learning training process versus classical ex-cathedra courses.

Methods

All dispatchers from Liege 112 dispatching centre (n = 35) were prospectively distributed into 2 training groups: e-learning versus ex-cathedra. We used a form to evaluate the acquisition of knowledge and we evaluated the costs of two training methods in order to obtain a cost-effectiveness ratio ICER (Incremental Cost-Effectiveness Ratio) to objectify their efficiency. 4

Reference

- 1. Nolan JP, Soar J, Zideman DA, et al. European Resuscitation Council Guidelines for Resuscitation 2010 Section 1. Executive summary. Resuscitation. 2010;81:1219-76.
- 2. Ghuysen A, El FAssi M, Stipulante S, et al. Belgian dispatchers' telephone cardiopulmonary resuscitation protocol training: an evaluation study. Critical Care. 2011;15:P289.
- 3. Ghuysen A, Collas D, Stipulante S, et al. Dispatcher-assisted telephone cardiopulmonary resuscitation using a French-language compression-only protocol in volunteers with or without prior life support training: A randomized trial. Resuscitation. 2011;82:57-63.
- 4. Maloney S, Haas R, Keating JL, et al. Breakeven, cost benefit, cost effectiveness, and willingness to pay for web-based versus face-to-face education delivery for health professionals. J Med Internet Res. 2012;14:222-37.

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Results

Expenses for ex-cathedra and e-learning methods were similar as concern the early implementation of the protocol. However, further training was considerably less expensive using the e-learning process (2200 € vs.150 €). Both types of training were effective in terms of learning gain (51.0% vs. 46.7%; p=NS), but ICER revealed that the ex-cathedra courses required an additional cost of 19,6 € to earn 1% of quality adjusted student education.

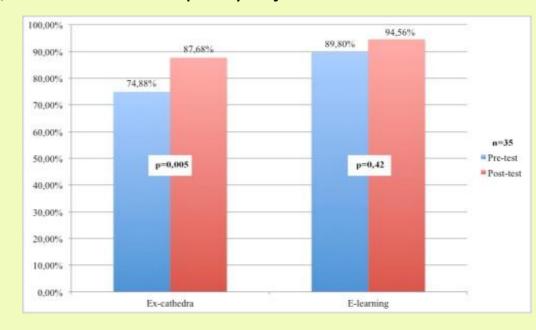


Figure 1: Comparison of results of knowledge ALERT protocol depending on the method of training

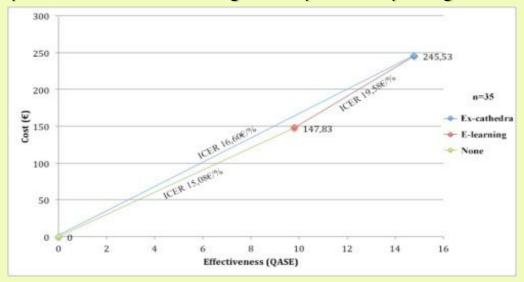


Figure 2 :Comparison of efficiency of training methods based on QASE. (Quality Adjusted Student Education)

Conclusion

Compared with the method ex-cathedra, e-learning for teaching the ALERT protocol provided in the dispatching 112 Liege is efficient.

keywords

DISPATCHING PHONE CPR E LEARNING







