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Poster presentation

Does cardio-pulmonary resuscitation influence perception of time?

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Introduction

Time is an important factor in several phases of cardio-pulmonary resuscitation, e.g. external chest compressions, medicine-administration and defibrillation.

When performing CPR it is difficult to maintain a good perception of time and this may have negative consequences for patient survival. The purpose of this study was to determine whether the staff's perception of time was intact during CPR.

Methods

The study took place over a two day period, in connection with a scenario-based advanced cardio-pulmonary resuscitation training session at a regional hospital, using current advanced CPR guidelines. Ten cardiac arrest scenarios were performed on a computerized patient simulator. The participants were asked during CPR how much time was elapsed until the question was asked. After termination of scenarios participants were asked independently how long time the treatment lasted when terminated. An observer recorded the actual time.

Results

The study included 24 participants (eight resident physicians, eight intern physicians and eight nurses). The mean error was -19.6 seconds (SD +/- 84.3) in time elapsed since diagnosing the cardiac arrest until the first question regarding elapsed time was asked, ergo underestimation of time. Regarding elapsed time until termination of treatment, the mean error was 32.4 seconds (SD +/- 202.7), ergo overestimation of time. Both physicians and nurses underestimate and overestimate time.

Conclusion

Perception of time during and immediately after CPR is affected.

We found both overestimation and underestimation of time. This shows the importance of having one person on the cardiac arrest team responsible for keeping track of time.