

P60: Utility of a smartphone application in the execution of Basic Life Support algorithm - exploratory study

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Introduction: The cardiac arrest is the interruption of blood flow that occurs as a result of sudden and unexpected interruption of the heartbeat or the presence of inefficient heartbeats. The Basic Life Support (BLS) includes an algorithm about recognizing of signs of cardiac arrest and rapid and effective start of resuscitation maneuvers.

Objectives: Verify the utility of a smartphone application in the fast and effective execution of the BLS.

Materials and Methods: Fifty participants, all skilled in BLS, performed the BLS algorithm before and after using one smartphone application with the BLS algorithm. The Hands Off Time (HOT - time until beginning chest compressions), was calculated, and was given 0-15 score to evaluate if the survival chain links were executed effectively and through the correct sequence.

Results and Discussion: None of the participants fully executed the algorithm correctly before using the smartphone application. The Hands off Time was 01:22(0:40) min and 00:45(0:16) min ($p < 0.001$) and a mean score of 9.4(3.3) and 13.5(2.3) ($p < 0.001$) before and after using the application, respectively.

Conclusion: The use of smartphone application with the BLS algorithm has contributed to correct and efficient execution of BLS, reducing Hands Off Time. The use of encouragement strategies, using technology for the implementation of BLS in cardiac arrest situation allows a fast and effective action, giving confidence to the rescuer. This way, we can increase the percentage of possible rescuers and increasing survival rate of cardiac arrest victims.

Conclusion: The use of smartphone application has contributed to correct and efficient execution of BLS, decreasing HOT. Encouragement strategies using technology for implementation of BLS in cardiac arrest situation allows a fast and effective action, giving confidence to the rescuer. This way, we can increase the percentage of bystanders rescuers and increasing survival rate of cardiac arrest victims.

References

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