

The efficacy of chest-compression only CPR in lay rescuer by using simultaneous mobile video instruction.

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Purpose : Difficulty in accessing BLS training and low proportion of bystander CPR in Thailand inspire to initiate this pilot study. This study is to develop and evaluate the efficacy of simultaneous video instruction on mobile phone for chest-compression only CPR by lay rescuer. The instruction can be used by lay rescuers while performing in each time.

Methods : 39 untrained lay rescuer volunteers, no experience in CPR and age between 18-50 years old, were asked to watch video instruction on mobile phone while performing CPR on mannequins. The video contents emphasized on the quality of chest compression including rate, depth, complete chest release and minimizing interruption. The depth, rate, hand position and complete release of chest compression were evaluated by skill reporter program. The other individual performance such as steps, sequence and time to first chest compression were evaluated by certified instructors from the video record.

Results : In this study, 84.6% could correctly perform chest-compression only CPR in all steps. The average rate of chest compression was up to 99 beats/minute (interquartile range, 93.3 to 101.6). The percentage of correct hand position and complete chest release were 64% and 97.4%. The mean±SD of depth was 30.6±12.6mm. The average time to first compression was 59 seconds (interquartile range, 57 to 60).

Conclusion : With our video instruction, most of untrained lay rescuers could perform chest compression better in all modality except for the depth. Other technologies such as real time feedback combined with this video may lead to improve depth of chest compression

Keyword : chest-compression only CPR, Video instruction CPR, bystander CPR

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