

TRAINING TO DEEPER COMPRESSION DEPTH USING A COMPUTERISED SELF-LEARNING STATION: FIRST RESULTS OF A PROSPECTIVE RANDOMISED STUDY.

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Introduction

Studies show that students trained to perform compressions according to guidelines often don't achieve sufficient depth at retention testing. We hypothesized that training to depths exceeding recommended upper limits would lead to better retention. This abstract describes baseline skill level and training to different compression depths using a self-learning station.

Methods

A BLS self-learning station was attended by 190 third year medicine students who were blinded for the study goals. They were first offered the possibility to refresh their skills following the instructions of a 15 minutes abbreviated Mini Anne™ video (Laerdal, Norway) using a full size torso and a face shield. Refresher training was followed by further training using the Resusci Anne Skills Station™ software (Laerdal,

Norway). Voice feedback was provided according to randomisation into a standard group (SG) 40-50 mm and a deeper group (DG) >50 mm. Compression depth was registered during the whole training session. Results are expressed as means (SD).

Results

The SG and DG groups had 90 (66% female) and 100 (56% female) participants respectively. Thirteen students (5 in SG and 8 in DG) skipped the initial Mini Anne™ video. Mean compression depth during the video was 37 mm in both groups (SD SG 7, SD DG 9), with compression depth 40-50 mm achieved in 27/84 (32%) for the SG and 29/93 (31%) for the DG. Immediately after training with voice feedback all students reached the target depth without any overlap between groups, resulting in significantly different compression depths: 44 mm (SD 1.6; range 41-48) and 55 mm (SD 2.5; range 51-60) in the SG and DG respectively ($P < 0.001$).

Conclusions

Compression depth was insufficient during video assisted refreshment. The self-learning station proved highly effective to achieve different depths in both groups. Follow-up will determine if compression depth remains deeper in the deeper group.