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Oral presentation

Making simulations more real: experiences from an advanced resuscitation provider course

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Objective

We wanted to see if simulations with more realism and intensity improve educational results over traditional mannequin-based CPR-training.

Design

Questionnaire survey to the participants measuring their subjective response after an 18 hours CPR provider course.

Setting

Provider course for EMTs to qualify them as ALS providers in the ambulance service, Haukeland University Hospital.

Methods

Eight EMTs participated in the course, which started with self-studies based on the 2005 ALS-algorithm and an instructional DVD that has been produced in-house. This was followed by six hours of skill training workshops. Another six hours of traditional mannequin simulation preceded the more advanced scenarios which also spanned over six hours (six scenarios) on CPR mannequins (Skilltrainer, Skillmaster and Resusci-Anne, Laerdal, Norway). Simulations were made more realistic with the use of alternative clothing on the mannequins, furniture to simulate a realistic location, human actors as next of kin or healthcare professionals and so on. In one particular scenario, esophageal hemorrhage from varicose veins was simulated by intubating the mannequin in both lungs to insert a drip set. Using the drip set, we filled each lung with red-coloured lactated Ringer's solution. Placed horizontally, the oropharynx quickly flooded with "blood". We made a point of using easily obtainable objects to do this, so that anyone who runs simulations can replicate it with low costs.

Results

50% found that having the simulations run like this was useful to a very large extent, 37.5% to a large extent and 12.5% were indifferent. Several other parameters were rated, all of which favored this approach.

Conclusion

Increasing the level of realism is an easy and probably useful learning aid. This is based on self-reported outcome in a small group. Quantitative measurements with larger and randomised groups will be done to further explore the effects of this approach to CPR simulations.