

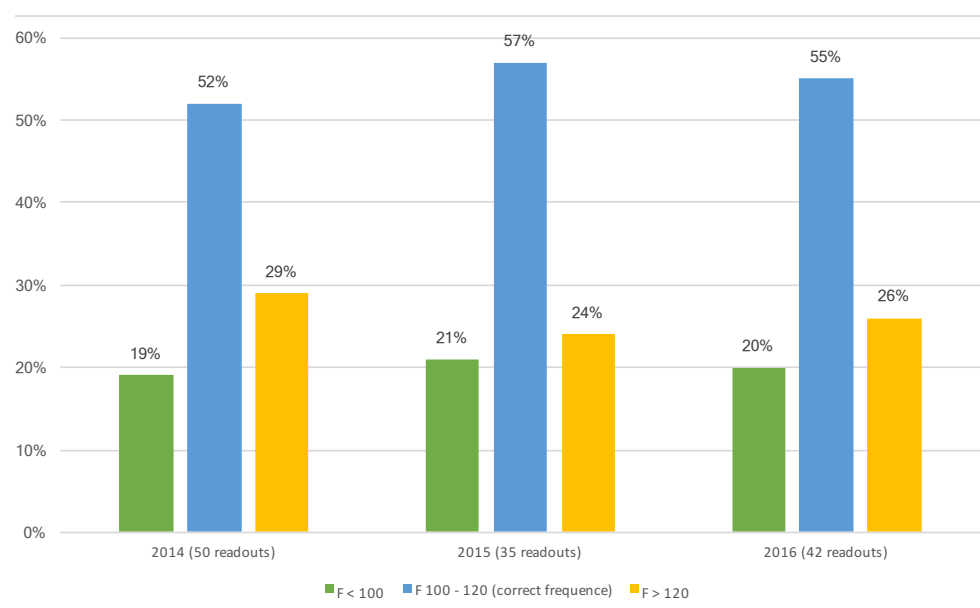
In-hospital CPR – Is it good enough?

A cross-sectional quality improvement study

M. Kaas, RN, CRNA, MCN, Cardiac arrest coordinator, dept. of anesthesiology, Odense University Hospital, Denmark
 T. Ploeger, RN, MCN, Cardiac arrest coordinator, dept. of cardiology, Odense University Hospital, Denmark
 L. Thrysoe, RN, MLP, Ph.D., Researcher in clinical nursing, dept. of cardiology, Odense University Hospital, Denmark

Background

Emergency department (ED) Service Assistants (SA) at Danish University Hospital, are part of the cardiac arrest team, thus they are trained in performing CPR several times a year. Outside the ED, CPR may be delegated to SAs who only participate in a mandatory training once every three years. Besides training, all SAs have to pass an e-learning resuscitation program once a year. Data from the past three years collected automatically from external defibrillators located outside the ED, indicate below standard performance of CPR by SAs. Regrettably, data from defibrillators at the ED does not exist for comparison.



Results:

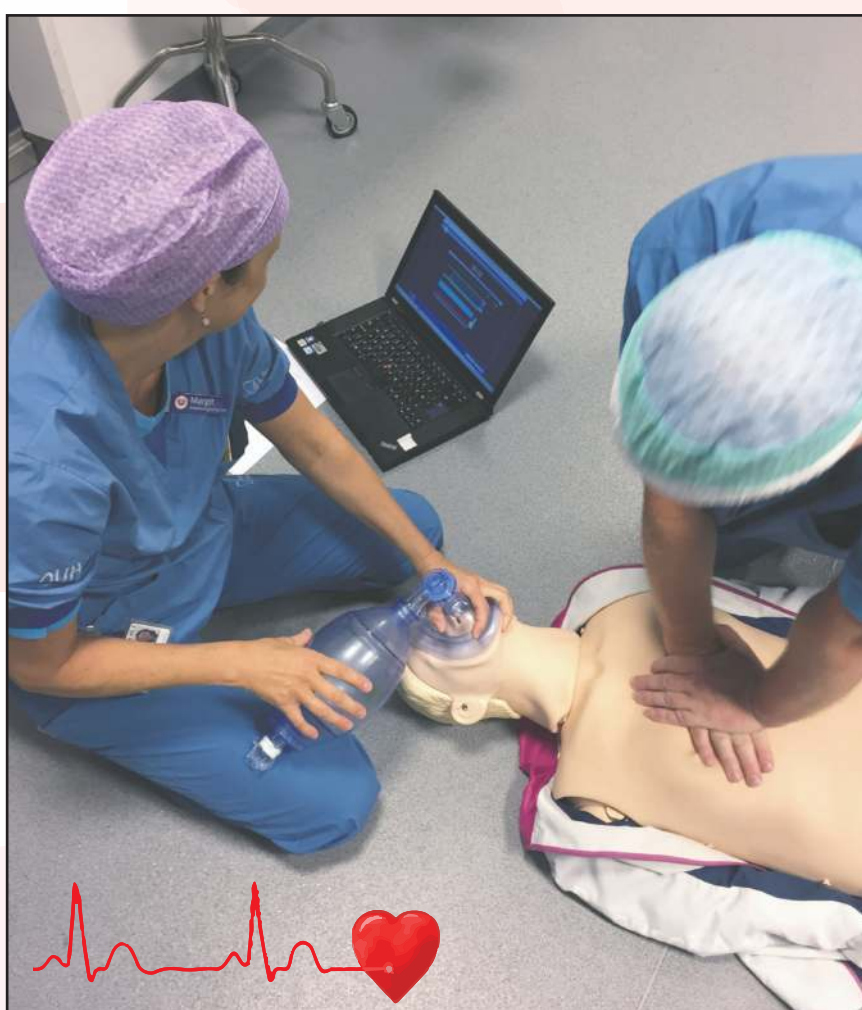
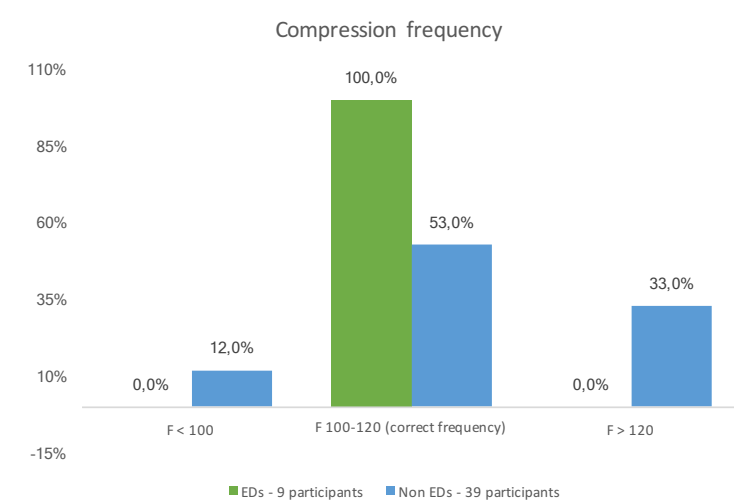
| Results (n=48) | Total population 24 EDs and 350 non-EDs | |
|--|---|----------------|
| | EDs (n=9) | Non-EDs (n=39) |
| Service Assistants | | |
| Female % | 7 | 18 |
| Male % | 2 | 21 |
| Correct pressing frequency in % | 100 | 53 |
| Correct depth of compression in % | 78 | 49 |
| Correct full recoil in % | 45 | 54 |
| Number of CPR simulations, last 365 days (average) | 2 | 0,2 |
| SA experience performing CPR following a cardiac arrest (average numbers of times) | 13 | 2 |
| Completed e-learning courses, last 365 days % | 56 | 26 |

Aim:

To assess the quality of CPR performed in relation to the level of training and experience by evaluating CPR data readouts from a test taken by Service Assistants from both ED and external departments.

Methods:

Performances were evaluated in adherence to ERC guidelines (100-120 compressions/min, compression depth 5-6 cm and recoil position). Furthermore, participants filled out an accompanying questionnaire concerning e-learning, training and possibly in performing actual CPR.



Conclusion:

Non-ED Service Assistants performed CPR below the level of ED Service Assistants, and frequently did not perform CPR to the standards of the ERC guidelines. This indicates that frequent training increases the quality of CPR given and is essential to maintaining CPR which lives up to ERC guidelines.