

Category : **Cardiovascular: cardiac arrest\CPR**

A38 - Measuring non-technical skills during prehospital advanced cardiac life support: a pilot study.

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Introduction:

Emergency mobile medical teams (MMT) are faced with out-of-hospital cardiac arrests (OHCA) daily. Despite their efforts, patient survival is limited. Research has demonstrated that optimal CPR efforts not only require technical skills and knowledge, but also non-technical skills (NTS) such as leadership, teamwork and task management [1]. This prospective observational study analyses the NTS of MMTs during OHCA, using the validated Team Emergency Assessment Measure (TEAM). Also, the correlation between NTS and outcome is researched.

Methods:

Adult patients who suffered from an OHCA between July 2016, and June 2018, and treated by MMT from the University Hospital Leuven, were eligible for the study. Resuscitations were video recorded by the team leader using a GoPro body camera. The recordings were independently scored by 2 ACLS-certified emergency physicians.

Results:

114 OHCA's were analysed. The mean TEAM score was 34.4/44. The mean item score was 3.1/4; 'effective team communication' scored the lowest (2.4), while 'acting with composure/control' and 'following of approved standards/guidelines' scored the highest (3.4). The average theme scores were 2.9 for 'Leadership', 3.1 for 'Teamwork' and 3.3 for 'Task management'. 'Leadership' was rated significantly lower than 'Teamwork' ($p = 0.004$) and 'Task management' ($p < 0.001$). No significant correlation was found between TEAM and ROSC ($p = 0.574$) or one month survival ($p = 0.225$).

Conclusion:

Although the TEAM score was good, large differences were observed. Task management was scored high, while leadership and team communication received lower scores. Despite the growing evidence, in this study no correlation was found between NTS and survival. Introduction of a NTS program into ACLS courses, with a focus on leadership and communication, might improve NTS. A constructive feedback platform can encourage post-event 'hot debriefs' to identify points of improvement. TEAM can be a helpful tool to achieve this.

References:

[1]Dewolf P et al AEM Educ Train. 2020 Oct 26.