In-hospital cardiac arrest –

Incidence, outcome and healthcare professionals' knowledge and attitudes towards cardiopulmonary resuscitation – a pilot study

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Purpose of the study

Cardiopulmonary resuscitation (CPR) training increases knowledge and enhance self-esteem among healthcare professionals (HCP) (1, 2). The knowledge is easily lost, after 12 months the levels are equal to pre-training (3). Despite CPR-training there can be anxiety, hesitation and fear of defibrillation (4). The purpose of this study was to identify the incidence and outcome of in-hospital cardiac arrest (IHCA), furthermore assess the knowledge and attitudes of CPR among HCPs at a minor hospital in Sweden.

Materials and methods

The study included all treated IHCAs in 2014 at a minor hospital in Sweden. Data from the Swedish Register of Cardiopulmonary Resuscitation were investigated. Furthermore 211 questionnaires from physicians, nurses and nurse assistants were analysed.

Results

The incidence of IHCA was 18 arrests/100 hospital beds/year and the survival rate was 33%. CPR-training was attended by 66%. A majority felt confident and would know what to do in case of an IHCA (Figure 1A). Satisfying self-perceived knowledge and more correct answers was seen among respondents with recent CPR-training. Only 7% of the respondents had all correct answers on the knowledge questions. Being able to defibrillate was strongly agreed by 58% and the skill to lead/give advice to the team was strongly agreed by only 11% (Figure 1B). More years in profession and recent CPR-training (0-6 months ago) were variables associated with confidence in CPR-knowledge and the ability to lead a resuscitation team (Figure 2A, 2B). Recent CPR-training was associated with the ability to defibrillate (Figure 2A). A long time since CPR-training and few years in profession was associated with anxiety (Figure 2A, 2B).

Figure 1.

A. Attitudes in a situation where there is a high risk of a cardiac arrest. The respondents were divided in groups by profession, nurse assistants (n=59), nurses (n=106) and physicians (n=46). Attitudes concerning confident with CPR-knowledge, know what to do, feeling anxious, feeling nervous, need to have things under control, take command if necessary and take leadership if necessary was analysed. The respondents in each group of profession are presented in percent.

B. Self-perceived skills of the respondents. The respondents were divided in groups by profession, nurse assistants (n=59), nurses (n=106) and physicians (n=46). The ability to ventilate, give compressions, defibrillate and lead/give advice to the team was analysed. The respondents in each group of profession are presented in percent.

Figure 2.

A. * = Cardiopulmonary resuscitation. Attitudes and self-perceived skills of the respondents depending on time since last CPR-training. The respondents were divided in groups by time since last CPR-training session, 0-6 months ago (n=77), 7-11 months ago (n=63) and >1 year ago/never (n=69). The respondents in each group is presented in percent.

B. Attitudes and skills of the respondents depending on years in profession. The respondents were divided in groups depending on years in profession. 0-5 years (n=43), 6-10 years (n=30), 11-20 years (n=53) and >20 years (n=81). The respondents in each group is presented in percent.

Conclusion

The incidence and survival of IHCA was close to the estimated. A majority felt confident and would know what to do in case of a cardiac arrest but very few respondents believed they had leadership skills. The knowledge was poor.

References

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