



Assessment of Emergency Medicine Residents' Cardiopulmonary Resuscitation Team in Imam Reza Hospital

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Short Communication

Cardiopulmonary resuscitation (CPR) is practiced widely since the first practical report on the efficacy of closed chest massage in 1960.¹ Delay in CPR after cardiac arrest could be associated with poor outcome.² A hospital CPR discharge rate of 1314% was reported from the studies in the 1990s^{3,4} which has been confirmed by the recent Canadian study.⁵ Therefore, we decide to study our CPR team which includes emergency residents, nurses, anesthesia technicians and the staff that are involved in resuscitating patients in all hospital wards. Reports of survival after discharge following in-hospital CPR are variable between 7% and 26%.⁶⁻⁸ In our research, most of arrests happened in the morning and asystole rhythm was the most common rhythm; a 40 percent survival rate showed that we can improve our CPR team performance. Recent data have recommended that the successful resuscitation efforts could be prevented by insufficient performance of CPR.⁸ To increase safety and reduce errors, effective team performance in dynamic and complex environments such as critical care units are required in where decisions are made.⁹ There is supporting evidence that suboptimal team performance can have damaging effects. In the context of ACLS training, poor ACLS performance is associated with inefficient leadership and impaired task distribution between the resuscitation team members.¹⁰

We studied 422 patients in our research from which 59.5% and 40.5% were male and female respectively. The median age of the patients was 68 (SD: 17.284) years old (mode: 73, oldest: 95, youngest: 1). The mean time of CPR performance was 30 minutes with the minimum of 3 minutes and maximum of 60 minutes.

We found that most of our patients who arrested (36%) were admitted in pulmonary ward and after that (18.5%) were admitted in gastroenterology ward.

Most of patients (51.7%) had arrested in the morning. 44.3% of patients did not have any definitive diagnosis; however, 5.5% of them had ESRD, 5.2% pneumonia, and 4.3% GI Bleeding.

Among patients asystole was the most common pattern (94.3; Figure 1), the other observed patterns are presented in Figure 1. Our CPR team had to intubate 24.4% of the patients while 75.6% were intubated prior to CPR team arrival. Just 40% of the patients could be saved following successful resuscitation.

Therefore, based on the obtained data from the present study, it seems that our CPR team work is effective; however, for being more effective and achieving better results, better organization is essential. By having more experienced and efficient team, and also by paying attention to those wards and times that have the most arrests we can be more prepared and therefore perform resuscitation more successfully than before.

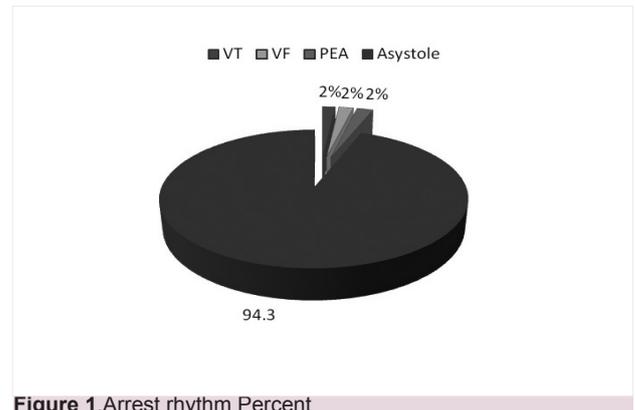


Figure 1. Arrest rhythm Percent

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