

Cardiopulmonary Resuscitation knowledge & skills among the Nursing Professionals in the ER of a Superspeciality Hospital, New Delhi

Amandeep Kaur¹, Kishalay Datta²

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Abstract

Nurses are generally the first responder to identify the need for and initiate cardiopulmonary resuscitation (CPR) on patients with cardiopulmonary arrest in the hospital setting. Cardiopulmonary resuscitation has shown to reduce in-hospital deaths when received from adequately trained health care professionals. Nurses, therefore, should possess adequate competency to provide effective resuscitation.

Keywords: Cardiopulmonary Resuscitation; CPR; nursing education.

INTRODUCTION

Cardiopulmonary resuscitation (CPR) is a well established procedure performed by medical and non medical professionals, in which both chest compressions and artificial ventilation are provided to maintain adequate blood flow to the brain and other vital organs.¹ Cardiopulmonary resuscitation has been shown to reduce in-hospital cardiac death and related fatalities when patients are managed by adequately trained health care professionals.² The American Heart Association (AHA) is the leading

authority on resuscitation science. Its approved training courses are taught across the globe. In an effort to practice evidence-based medicine, AHA updates are released every 5 years. The 2015 AHA update for CPR and emergency cardiovascular care (ECC) focuses on topics involving significant new developments in resuscitation science or ongoing controversies, and serves as an update to the 2010 AHA Guidelines for CPR and ECC rather than as a complete revision of the guidelines.³ In this study, we evaluate the nursing team of our emergency department regarding their skill and knowledge in handling cardiac arrest patients.

CASE

This observational study was carried out for a two month period (November 2022, December 2022) in the emergency department of our institute. The study involved observation of the CPR provider skills imparted during the training session to the nursing officers working in the emergency department. The focus was given more on young

Author's Affiliations: ¹Senior Staff Nurse, ²Director and HOD, Department of Emergency Medicine Max Hospital, Shalimar Bagh, New Delhi-110088, India.

Corresponding Author: Kishalay Datta, Director and HOD, Department of Emergency Medicine Max Hospital, Shalimar Bagh, New Delhi-110088, India.

E-mail: dr.kishalay@gmail.com

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new trainee nursing officers. All the components of high quality CPR were noted, knowledge about the administration and handling of medications, rhythm identification on the cardiac monitor was noted.

Daily nursing lectures are carried out and CPR and BLS topics are covered in these lectures by the nursing educators of our institute. Apart from this, BLS and Acls provider courses by the AHA are also organized for the medical professionals in our institute for getting registered with AHA.

DISCUSSION

This observational study found that the basic knowledge and skill of Cardiopulmonary Resuscitation needed to be possessed by the nursing officer was lacking among the new joinees. The senior staff had good knowledge and skill to carry out the CPR and BLS protocol. It was also observed that the nurses who had taken the AHA course prior, had better skills and knowledge in handling cardiac arrest patients.

High-quality CPR is the cornerstone of first aid and emergency medical care that can optimize outcomes beyond return of spontaneous circulation.

High quality CPR consists of 5 components - push hard and push fast, minimize interruptions, adequate ventilation, complete chest recoil, depth for chest compression about 5cm.

Knowledge about the medications handling and administration are not explained in the BLS course but, being in the emergency room, the nursing team must be fully aware of these medications and use, adverse effects, indications and contraindications.

The knowledge of CPR plays a vital role in the final outcome of acute emergency situations.

CONCLUSION

This study was an observational study and involved nursing officers of the Emergency department of our institute. The study showed that the knowledge and skills among the new nursing officers were lacking when compared to the senior nursing officer.

This study was limited by its time frame, participants involved and limited department exposure. A further study involving more participants and live demonstration with pre-test and post test skill and knowledge gain will be required for the better assessment of nursing officers.

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