

IAP-BLS: The Golden Jubilee Year Initiative

CP BANSAL

National President, Indian Academy of Pediatrics, 2013

Correspondence to: Shabd Pratap Hospital, Lashkar, Gwalior, MP. cpbansal@gmail.com

Sudden cardiac arrest (SCA) is not the same as heart attack or myocardial infarction. In myocardial infarction, the blood supply to the myocardium is compromised leading to ischemia. MI can also lead to cardiac arrest. In contrast, a sudden cardiac arrest happens in an apparently healthy individual, without the background of any cardiac ailments. There is sudden electrical conduction abnormality in the myocardium leading to a life threatening, usually fatal event. The SCA can happen either in a hospital setting (In Hospital Cardiac Arrest-IHCA) or out of the hospital (Out of Hospital Cardiac Arrest-OHCA). An OHCA is defined as cessation of cardiac mechanical activity that is confirmed by the absence of signs of circulation and that occurs outside of a hospital setting. It can occur from non-cardiac causes (i.e., trauma, drowning, overdose, asphyxia, electrocution, primary respiratory arrests, and other non-cardiac etiologies), the majority (70–85%) of such events have a cardiac cause [1,2]. The outcomes of OHCA are dismal as compared to IHCA. The majority of persons who experience an OHCA event, irrespective of etiology, do not receive bystander-assisted cardiopulmonary resuscitation (CPR). Every minute lost in initiating CPR leads to 10% decrease in survival rates of the victim. For every thirty victims of SCA provided CPR, one additional life can be saved [3,4]. CPR can be learnt by any one and every one. 70% of the respondents in the US do not know how to administer CPR or their knowledge and skills have lapsed long ago.

The situation in our country is certainly not better. Not only there is dearth of knowledge and skills of resuscitation amongst the medical professionals across the country, the common man does not relate the CPR to a medical intervention. Even though the medical professionals are expected to be adept in the art and science of CPR, the training, knowledge and skills, including those of the senior members of the fraternity are not at par with the required set standards by any means. The situation is uniform across the world [5-9].

The IAP Initiative

The IAP has been training the member pediatricians in the

skills of CPR through the BLS module since 1995 through the IAP-PALS group. The standalone certified courses in BLS for Health Care Providers (HCP) were initiated in 2010 to cover the non-pediatrician healthcare providers. The importance of by-stander CPR being a vital step for survival of an OHCA victim led to the concept of taking the BLS skills to the masses.

The concept was initiated by Dr Deepak Ugra along with Dr LN Taneja and Dr Sukhmeet Singh, we started working on it tirelessly along with Dr Anand Shandilya and Dr Janani Shankar, however the mass awareness modules were designed in the year 2012 to meet such requirements. The BLS module uses video based training on the manikin for which resources were required. The vision was shared with the IAP team led by Dr Rohit Agarwal at that time and a set of low cost manikins were procured through the community service arm of the IAP in 2012. The videos were shot with the generous support of Dr Ramesh Kancharla, Managing Director of the Rainbow Children Hospital, Hyderabad, AP. The courses were conducted successfully at Hyderabad, Delhi, Ludhiana, Chennai and other parts of the country. These were instant hits. Two separate manuals for IAP-BLS were published to compliment the training of BLS.

Realizing the herculean nature of the task to equip the masses with the BLS skills, the PALS group approached the CIAP and Executive Board 2013. The responsibility to steer this project is shouldered upon Dr L N Taneja, as the Chairman and Dr Sukhmeet Singh as the National Convener, with the help of IAPPALS group led by Dr Arif Ahmed as the National Coordinator for this BLS activity. The other members of this team are Dr V Yewele as the Co-Chairperson and Dr Sailesh Gupta as the IAP coordinator. One national TOT (Kolkata Pedicon 2013) and two regional TOTs (Hyderabad and Chennai) have been conducted to develop the resource personnel.

The Training Module

1. To conduct the BLS awareness programs through at least 30 city branches across India. There would be three components of the one day activity:

- a. A four hour BLS training session for the members of the IAP;
- b. A two and a half hour BLS training session for the families and friends of the pediatricians and members of the public;
- c. A press conference / press release by the city branch to the local electronic and print media regarding the importance of the BLS project and vision of the IAP.

The IAP plans to support these programs by providing the following in each activity:

1. Forty BLS books for the HCP delegates
2. Forty SLP books for the laypersons
3. Financial support of Rupees 30,000/- to the IAP branch to organize the event.
4. Manikins may be provided to these branches through the IAP PALS group to conduct more such independent activities if the finances permit.

Expectations:

1. Awareness of CPR and the need for early bystander CPR to a victim of OHCA.
2. Improving the chances of a victim getting the bystander CPR after these programs, improving the chances of intact survival.
3. Creating local resource personnel to continue spreading the BLS skills in the community.
4. Enroll volunteers / philanthropic organizations / government setups to support these programs and provide logistics support.

The Future

Lay person by-stander CPR is evidenced to improve the outcomes in OHCA. There could be many opportunities/venues to train the laypersons in the CPR. Requirements of the workplace may mandate training in CPR. Beginning early by training school children is a very promising proposal. Developmentally appropriate CPR training materials may be developed to introduce the subject in the staged manner for young school children [10]. The healthcare facilities should include BLS training as a part of essential academic prerequisite. Smart phone applications may be developed for easily accessible information on CPR that may be used by laypersons anywhere.

Initial work has suggested that video-only approach can also help provide training in CPR. This has opened new horizons for mass training. Announcements/demonstration on televisions in airports, railway station, bus station, market places, malls etc. may come handy to provide immediate information. Electronic media and internet based tools like IAP-PALS/BLS website, Facebook® and Twitter® You-tube® can also be tapped.

REFERENCES

1. Roger VL, Go AS, Lloyd-Jones DM, Benjamin EJ, Berry JD, Borden WB, *et al.* Heart disease and stroke statistics–2011 update: a report from the American Heart Association. *Circulation.* 2011;123:e18–209.
2. Jacobs I, Nadkarni V, Bahr J, Berg RA, Billi JE, Bossaert L, *et al.* Cardiac arrest and cardiopulmonary resuscitation outcome reports: update and simplification of the Utstein templates for resuscitation registries. *Circulation.* 2004;110:3385-97.
3. Go AS, Mozaffarian D, Roger VL, Benjamin EJ, Berry JD, Borden WB, *et al:* on behalf of the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Heart disease and stroke statistics–2013 update: a report from the American Heart Association. *Circulation.* 2013;127:e6–e245.
4. Sasson C, Rogers MA, Dahl J, Kellermann AL. Predictors of survival from out-of-hospital cardiac arrest: a systematic review and meta-analysis. *Circ Cardiovasc Qual Outcomes.* 2010;3:63-81.
5. Avabratha KS, Bhagyalakshmi, Puranik G, Shenoy KV, Rai KS. Study of the knowledge of resuscitation among interns. *Al Ameen J Med Sci.* 2012;5:152-6.
6. Chaudhary A, Parikh H, Dave V. Current scenario: Knowledge of basic life support in medical college. *Nat J Med Res.* 2011;1:80-2.
7. Zaheer H, Haque Z. Awareness about BLS [CPR] among medical students: status and requirements. *JPMA.* 2009;59:57.
8. Shrestha R, Batajoo KH, Piryani RM, Sharma MW. Basic life support: knowledge and attitude of medical/paramedical professionals. *World J Emerg Med.* 2012;3:141-5.
9. Oliver R, Johannes K, Fritz S, Thomas U, Moritz H, Andreas K, *et al.* CPR in medical schools: learning by teaching BLS to sudden cardiac death survivors – a promising strategy for medical students? *BMC Med Edu.* 2006;6:27.
10. Sasson C, Meischke H, Abella BS, Berg RA, Bobrow BJ, Chan PS, *et al.* Increasing cardiopulmonary resuscitation provision in communities with low bystander cardiopulmonary resuscitation rates. *Circulation.* 2013;127:12-134.