

## **Training in Basic Life Support – Are we Ready to Meet the Challenge?**

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**B**asic life support (BLS) is a series of steps undertaken to revive a person who has suffered a cardiac arrest. Cardiopulmonary resuscitation (CPR) is a set of skills used to revive heart beats by sequential chest compression and artificial breathing. It is one of the components of BLS and Advance life support (ALS). Sudden cardiac arrest (SCA) is usually reported in about ten percent of all deaths. In India, exact figures of SCA are unknown but are believed to be similar to the western world. In a verbal autopsy study from Southern India, unevaluated ischemic heart disease was found to be the leading cause of SCA. On extrapolation of this data, the authors estimated that about 700,000 SCA deaths occur annually in India [1].

In another study, Madhavan *et al.* [2] observed that the majority of SCA events were at home, and almost 85% of these events were witnessed. It is now scientifically proven that bystander CPR provided to the victim improves the chances of survival in out-of-hospital cardiac arrest. Also, data show that in an event of a cardiac arrest, the victim would usually be with his/her near and dear ones, and these kin would have the best chance to provide immediate CPR and enhance the chances of survival. Thus, it is important that every member of the society be trained in BLS and CPR for all of us to feel safe and secure in the event of SCA.

People look forward to the doctors in situations arising out of events like SCA and expect help. The doctors trained in modern medicine are expected to be proficient in skills of CPR. It's been only 60 years that the American Heart Academy (AHA) developed a set of systematic skills of CPR that have been revised every five years based on the new evidence. Advancements in technology have added to the outcomes of CPR and BLS. Placement of automated external defibrillator (AED) in public places has made the access of these simple-to-use equipment within reach of common man, but are still limited to metro cities in India – that too only at airports and some shopping malls. Many hospitals, including medical colleges, have procured AEDs but sadly lack manpower trained to utilize this equipment. The

undergraduate medical curriculum includes the training in CPR, but mostly is imparted as a theory session or many a times just forgotten.

There are modular training programs designed by the Indian Academy of Pediatrics (IAP) ALS BLS group [3]. The modules have been developed similar to those on lines of AHA, but Indian scenarios and milieu have been accounted for. Different modules are available to cater to different segments of the society. The IAP BLS training includes comprehensive CPR skills for infant, child and adult victim, apart from the maneuvers for foreign body removal in case of choking, unlike many other groups in India, which impart CPR training for only adult victims. There are certificate courses – in which the delegates are subjected through skill-based competency test and awarded a successful completion certificate only on fulfilling the laid down criteria. There are awareness programs where the delegates are provided with bare minimum knowledge and few essential skills of CPR along with handouts. They are not subjected to evaluation process. The courses and programs are designed for doctors, nurses, paramedics and nonmedical personnel. The training is supported by a manual as well as videos. Delegates of IAP BLS certificate courses, who are proficient in skills as well as have the aptitude to teach and spare time for training others with good command over the communication skills, are invited to undergo special training to become instructors in BLS by the IAP BLS group.

The IAP promotes the BLS training through the network of IAP-accredited CPR centers across the country. This requires a small investment by the institution in the form of manikins and a training area. The capacity building and the technical support is provided by the IAP BLS group, which has a nationwide presence. The IAP CPR day is observed on July 21 of every year to commemorate the birth anniversary of one of our colleague Dr Anand Shandilya. IAP BLS group and CPR centers conduct programs on this day to spread awareness of BLS to the masses.

The board of governors in suppression to Medical Council of India (MCI) has created a foundation course

for all MBBS students (2019 onwards) that will serve as a bridge for the student into MBBS Program, and to orient them to the knowledge, skills and attitude required during the MBBS Course. The Foundation course mandates 35 teaching hours on 'skill modules' including 6 essential skills *i.e.*, first aid, BLS, Universal precautions, waste management, immunization, and documentation. A 3-hour BLS Foundation course module has been specially designed to train MBBS and nursing students by the IAP BLS group. The video module is self-explanatory and does not need manual to be read in advance. The first batch of medical college entrants of 2019 have been trained in IAP BLS foundation course in some colleges in India. The impact and efficacy of indigenously made video-based BLS training module has also been tested. The same module can be adapted by MCI to introduce in other medical colleges across the country for BLS training.

IAP ALS BLS group is actively involved in ensuring globally acceptable evidence-based guidelines on resuscitation, and makes a strong partner with similar bodies. To develop robust scientific mechanism of developing evidence-based guidelines and to pool the knowledge from other stakeholders, we had our representation in International Liaison Committee on Resuscitation (ILCOR) 2019 at Cape Town with Indian Resuscitation Council. Experience gained will be extremely useful in making Indian task forces on BLS and ALS, and pave a way forward to ensure Indian presence in this global body on development of resuscitation guidelines. I look forward to your continued support and hope to achieve the following goals:

- To develop IAP Center for CPR training at all states covering at least 50% of all medical colleges in India by end of 2020.
- To ensure CPR training for all MBBS students in these medical colleges.
- To increase instructor pool to 200% of current instructor pool.
- To have nursing representation in instructor pool to at least 25%
- To ensure that one day IAP ALS program is made essential for all medical students across India.
- To ensure that one day IAP ALS program is made essential for all the nurses involved in child care across India.
- To promote and facilitate resuscitation-related research in India.

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