



The Lifesaver

Official Newsletter of INDIAN RESUSCITATION COUNCIL



EVERY CITIZEN A LIFESAVER

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THE LIFESAVER

The official newsletter of INDIAN RESUSCITATION COUNCIL

Every Citizen A Lifesaver

by Dr. SSC Chakra Rao

The Indian Society of Anaesthesiologists, has proposed the development of Indian guidelines for Resuscitation to impart cost-effective, quality CPR training to Medics, Paramedics, School children and Laymen. The objective of the guidelines is to achieve successful resuscitation in cases of sudden cardiac Arrest, within the hospital, outside the hospital and help reduce the death rate due to sudden cardiac arrest. The existent resuscitation training programs suffered from the country's economic constraints, very expensive American Heart Association training and recertification and AHA trainers being available only in big cities of the country. India is a vast country with huge diversity, different cultures, languages, religions, customs, atmosphere, socio-economic issues and differences in terrain. The environment and the infrastructure for resuscitation of a person with

sudden cardiac arrest vary from place to place. Considering these facts, Dr. SSC Chakra Rao, the Past President of the Indian Society of Anaesthesiologists, was appointed as Coordinator to oversee the drafting of Indian Resuscitation guidelines by the Indian Society of Anaesthesiologists. A group of 40 members from all over India were selected to formulate the guidelines and a series of meetings were held. A scientific committee was formed with Dr. Rakesh Garg (AIIMS, New Delhi), Dr. Syed Moied Ahmed (Aligarh Muslim University, Aligarh), Dr. Mukul Chandra Kapoor (Max Smart Super Specialty Hospital, Saket, New Delhi), Dr. Baljit Singh (GB Pant Hospital, New Delhi), Dr. Rasesh Diwan (Medical Director, Raghudeep Eye Hospital, Ahmedabad), and Dr. JV Divatia (Prof & HOD, Tata Memorial Hospital, Mumbai) as members. The scientific committee worked under the

leadership and guidance of Dr. SSC Chakra Rao. Indian Society of Anaesthesiologists permitted the establishment of the National Headquarters of the Indian Resuscitation Council at Kakinada.

With the kind gesture of RAMCOSA, (Rangaraya Medical College Old Students Association), the National Headquarters of the Indian Resuscitation Council was established at RAMCOSA HOUSE, Kakinada. Thanks to the efforts of Dr. Lokesh Edara, members of RMCANA came forward and donated manikins worth Rs 7.5 lakhs. Dr Vijayaraghava Rao Pokala donated Rs 1.5 Lakhs to meet the expenses for the development of the Headquarters at Kakinada. Preliminary meetings were held on 16th of April 2017 at Hyderabad and on 29th-30th July at Karimnagar, Telangana.

The draft of the resuscitation guidelines was discussed by the members of the group several times and the first workshop was conducted at RAMCOSA HOUSE on 6th October 2017.

A TOT program was conducted at Kolkata on 24th Nov 2017. Dr. Suresh Reddy, The President of AAPI (American Association of Physicians of Indian Origin) has attended the program. The compression only Life support Algorithm is unique to our

guidelines. RMCANA invited Dr SSC Chakra Rao and Dr Rakesh Garg to attend the AAPI conference at Kolkata on 28th Dec 2017 and the expenses were borne by AAPI.

They were both felicitated by the President of AAPI and received laurels from the members. Dr SSC Chakra Rao and Dr. Syed Moied Ahmed attended the annual meeting of GAPIO at Mumbai in January 2018 and presented ISA/Indian guidelines of Resuscitation.

The team ISA met Dr Vinay Nadakarni, Past President, International Liaison Committee on Resuscitation (ILCOR), on his invitation at Hyderabad in March 2018. He advised us to apply for membership in ILCOR and we hope to become a member of ILCOR soon. IRC developed the training manuals for BCLS (BLS) and CCLS (ACLS) which were released by the Honorable Vice President of India, Sri M Venkaiah Naidu, on different occasions. The manuals are simple, unique, and are protected under the copyright and trademark acts of the Government of India.

The Vice-Chancellor of Dr. NTR University of Health Sciences, Andhra Pradesh has approved and made BCLS training mandatory for the House surgeons as a part of their curriculum to obtain their degree certificate.

A survey was done on the

availability of manikins in India. Indian Society of Anaesthesiologists has offered a manikin free of cost for each city branch of ISA if they purchased one manikin. Thus, 168 manikins were purchased by ISA for its city branches.

ILCOR, WRAH (World Restart a Heart) day is celebrated on 16th October every year and mass CPR training programmes are envisioned across the country, for the school children and laypeople. Our target is to train 100000 individuals on a single day all over India. We are working on the logistics and creating awareness using posters, TV, social network and other media.

This is a very big project with huge financial implication and we are going all out to ensure its success. We have trained 225,000 students and laymen in 2018, and 476,236 in 2019. We are the regular invitees for ILCOR and attended the meeting at Cape Town, South Africa in 2019 and the AHA 2020 resuscitation guidelines were framed at this meeting. Every year on 16th August we celebrate World Restart A Heart Day, World Anaesthesia Day on the advice of ILCOR and in the year 2020, because of covid-19, we held a virtual conference which was attended by Dr. Vinay Nadkarni, Ex Chair of ILCOR, Dr. Bernd Bottiger, Chairman of European Resuscitation Council From Klon, Germany, Dr. Andrew Lokey, Vice Chairman of European Resuscitation Council from the UK, the President, the Secretary and the office bearers of ISA and the members of the Scientific Committee of IRC.

Honourable Minister of Agriculture AP Sri K Kanna babu, Smt. Vanga Geetha, MP Kakinada, Sri D. Chandrasekhar Reddy MLA Kakinada attended the conference in person. The Director-General of Postal services AP released a special envelop and postal stamp on that day.

Our aim is, to establish a Comprehensive Resuscitation Training Center (CRTC) in every medical college in India and train all Medics and paramedics to improve the survival rate in the victims of Sudden Cardiac Arrest outside the hospital. Our endeavour is to make Every Citizen A Lifesaver, a Make in India programme for Atmanirbhar Bharat.

Jai Hind

Dr. SSC Chakra Rao
Chairman
Indian Resuscitation Council



FROM THE

EDITOR'S DESK

The Indian Resuscitation Council (IRC) was formed in 2017 to propagate resuscitation training and teach all Indians.

The organization has since flourished meticulously following its motto 'Every Citizen a Life Saver.' Resuscitation is a fundamental skill every citizen should acquire. No Citizen can be allowed to succumb to sudden cardiac arrest without an overt effort to mitigate the arrest. Our country has been ignorant of the need for resuscitation training of one and all. The surge in the activities of the Indian Resuscitation Council has helped transform the mindset of our countrymen towards Resuscitation.

IRC took resuscitation training to every district of the country with the help of the State and District branches of the Indian Society of Anaesthesiologists. IRC got Compression-Only-Life-Support (COLS) in the forefront of Resuscitation for the first time. Other countries started Compression-Only-CPR later, and today COLS has become the standard practice for Bystander CPR. The IRC developed guidelines and algorithms for Basic Cardiopulmonary Life Support (BCLS) and Comprehensive Cardiopulmonary Life Support (CCLS) and published them in the Indian Journal of Anaesthesiology. All Resuscitation enthusiasts widely accepted the guidelines. Gradually, IRC was able to initiate 'Training-of-Trainers' of Instructors of other Resuscitation guidelines. The popularity of these IRC resuscitation conversion TOTs reflects the acceptance of the IRC guidelines by all.



Dr. Mukul Chandra Kapoor
Director,
Scientific Committee
Indian Resuscitation Council (IRC)

The acceptance of the IRC courses by Universities and Colleges demonstrates the popularity of the IRC. Many Universities have made IRC-certified BCLS courses compulsory for medical and para-medical students. IRC's activities also did not escape international recognition. The International Liaison Committee on Resuscitation (ILCOR) asked IRC to take part in its annual event 'World Restart a Heart Day.'

IRC was able to train much larger numbers than all western countries. The day is not far when IRC will be a member of the illustrious and esteemed organization ILCOR.

The IRC is expanding its wings and is currently framing its guidelines for various emergencies. Task forces were made, which meet regularly to draft guidelines and algorithms for different emergencies. The IRC will soon have comprehensive resuscitation protocols for all emergencies.

There may be some omissions and mistakes in the labelling of the photos which may be corrected in the next issue. Any request for correction shall be addressed to ircnewsmedia@gmail.com.



Dear Dr. SSC Chakra Rao

I am happy to note that the Indian Resuscitation Council, has planned to bring out a News Letter "Life Saver". It's a good idea to project all the activities and training in different medical colleges.

Dr NTR University of Health Sciences AP will provide all the encouragement and cooperation. I wish the Lifesaver will be a grand success.

Regards



Dr. Syam Prasad
Vice Chancellor
DR. N.T.R UNIVERSITY OF HEALTH SCIENCES
Andhra Pradesh.



केन्द्रीय माध्यमिक शिक्षा बोर्ड
मानव संसाधन विकास मंत्रालय, भारत सरकार के अधीन
CENTRAL BOARD OF SECONDARY EDUCATION
(An Autonomous Organisation under the Ministry of Human Resource Development, Govt. of India)



Dr. M.V.V.PRASADA RAO
M.A., B.L., B.Ed., M.Phil., Ph.D.,
DIRECTOR

Date :

Date: 20th March 2021.

Dear Dr.Chakra Rao garu,

It is indeed great pleasure to note that the Indian Resuscitation Council under your Chairmanship is rendering yeoman service to train the youngsters in our country to rescue the patients who suffer from Cardiopulmonary arrest. Such training especially in schools and colleges provide the basic knowledge of Cardiopulmonary Life support to the youngsters who can confidently execute their services to the needy and save from immediate consequences.

I am glad to know that your organisation has been very active for quite long time and training the students as well not only in Professional colleges but the other educational institutions. It is in fact the need of the hour and such trainings will enhance the confidence of the people and provide an opportunity and satisfaction of saving lives of human beings. The Guidelines drafted for the purpose are found very useful for the students.

I wish you and all your Team mates a grand success in this endeavour. Your committed and dedicated services will go a long way for the benefit of the people.

Regards.


(Dr.M.V.V.Prasada Rao)

Dr.S.S.C.Chakra Rao
Chairman, Indian Resuscitaion Council





ISA
Indian Society of
Anaesthesiologists

From the Desk of

The President of ISA



Dr. Muralidhar Joshi
President ISA

The art of giving life to someone is an ultimate gift to mankind. In this context, the Indian Resuscitation Council's (IRC) efforts in educating the common man with Compression Only Life Support (COLS) and also medical professionals in BCLS & ACLS is not only a great effort but quite exemplary.

The commitment and the dedication of the IRC team are quite emulating for all of us. We congratulate all concerned for bringing out the newsletter in regard to resuscitation, it will help in spreading awareness amongst citizens, which will definitely help in building our nation in different walks of life. Every dream comes with its own challenges and IRC dreamt about it and the results are quite obvious and phenomenal. We, at ISA, wish the IRC team great success in their efforts and we are always with you.

Long Live ISA-IRC

Jai Hind



From the Desk of

The Secretary of ISA



Dr. Naveen Malhotra
MD, DNB, FIPM, FICA, FIAPM
Honorary Secretary ISA National.

Greetings!

It gives me a feeling of immense pleasure in writing this message for the E-Newsletter of the Indian Resuscitation Council- An Initiative of the Indian Society of Anaesthesiologists. IRC has been conducting regular activities all over the country. Even in the pandemic, online activities have continued. Online Training of Trainers (TOT) courses have generated good enthusiasm. New resuscitation guidelines are also being formed for which online meetings are held regularly. Indian resuscitation council (IRC) suggested guidelines for comprehensive cardiopulmonary life support (CCLS) for suspected or confirmed coronavirus disease (COVID-19) patient were appreciated by all. IRC Stamp release on 16th October 2020 was a historic event.

Heartiest congratulations to Team Indian Resuscitation Council led by Dr.S.S.C. Chakra Rao, Chairperson IRC and Past President ISA National on the release of the E-Newsletter.

Work Safely, Stay Healthy.
Jai ISA!
Jai ISAian!

Best wishes and warm regards,



ISA
Indian Society of
Anaesthesiologists

It is heartening to know that I.S.A., I.R.C. is coming up with its newsletter.

This is good news as it will spread the activities of IRC as well as spread the vision and Mission to the majority of members. IRC is doing commendable work in the field of teaching and training with regards to Resuscitation not only to medical professional but also to the public in general. Hearty congratulations to the whole team under your leadership. Wishing you all the best for the newsletter and other future endeavours.

With Best Wishes,



Dr. Virendra Sharma
Treasurer I.S.A. National



ISA
Indian Society of
Anaesthesiologists

Indian Society of Anaesthesiologists (ISA) started a Mission to save lives in India and for this ISA initiated the formation of the Indian Resuscitation Council (IRC). IRC Guidelines were released in 2017.

The IRC under the Chairmanship of Dr S.S.C.Chakra Rao, Past President ISA and the team members including CRTC Co-Ordinators have been enthusiastically and actively spreading the knowledge and practice of IRC Guidelines across the country.

It is with great pleasure that I welcome the first edition of the weekly newsletter by the Indian Resuscitation Council.

Since its inception, the council has always strived to improve the well-being of our community, and with this newsletter, I hope to connect with our community more openly, transparently and bring more accountability to our cause.

Jai Hind

Jai ISA

JAI IRC



Dr. Suresh Kumar Bhargava
Vice President ISA.



ISA
Indian Society of
Anaesthesiologists

I am happy to learn that IRC is bringing out E-newsletter at regular interval and the 1st News Letter is being published soon. I wish it will have articles on advances in Resuscitation. IRC is doing great work by giving training on resuscitation to medical personnel, paramedics, school children and common laypeople. This is a great service to humanity.

I congratulate you on your idea of bringing out the E-News Letter and wish it will become popular with articles of interest to all. I wish that you will bring out Pubmed indexed Resuscitation Journal soon.

Your two hands will save lives



Dr. Venkatagiri K.M., MD, MBA, FICA.
President Elect, ISA National



ISA
Indian Society of
Anaesthesiologists

The heart is a tricky pump and stops working suddenly. That it can be restarted and stay so is the broad principle of providing cardiopulmonary resuscitation (CPR). This has inspired many health care specialists and groups across the world, to protocolise and propagate techniques of CPR for the last few decades.

The growing realisation that India, a 1.4 billion strong country and many of the economically weaker countries needed tweaking of the existing guidelines for better outcomes led to the formation of the Indian Resuscitation Council (IRC) under the umbrella of the Indian Society of Anaesthesiologists (ISA), an encompassing body of different medical specialities of India. The team has been successful in training medical and paramedical personnel and is going strong across the country, with the establishment of IRC training centres,



Dr. Bala Bhaskar S
Chairman
Academic Committee, ISA

training of instructors and has received government approval at various levels. My wishes to the IRC under the leadership of Dr Chakra Rao for further success in their humanitarian mission. I appeal to all to join hands with ISA-IRC and save lives.



I am very happy to know that IRC is bringing out its Newsletter. It is a very good beginning and is always good to reach out to its members and others keep abreast of the developments of any organisation and are communicated and a Newsletter is a very good medium.

I hope this will create awareness and bring recent developments to all the members and increase awareness of the good work done by IRC. I wish Dr Chakra Rao sir and all the active members of IRC great success in this endeavour.

Best Wishes
Warm Regards



Dr. Lalit Mehdiratta
Editor in Chief
Indian Journal of Anaesthesia

Dear Dr Rao and Indian Resuscitation Council Colleagues,

It is my great pleasure to send you warm greetings, encouragement and super strength to continue to battle the pandemic of Covid19, and the annual epidemic of sudden cardiac arrest. Your resuscitation guidelines, training, and efforts to safely save and restore life amid this crisis are admirable.

On behalf of your colleagues at ILCOR, our thoughts and prayers are with you. Your actions are larger than words. Best of luck as you inaugurate this IRC Newsletter, and let us all join together to overcome this crisis together!



Dr. Vinay Nadkarni MD, MS
Ex Chair ILCOR

The COVID-19 pandemic has been a global tragedy. In particular, it has devastated India and my thoughts and prayers go to all affected. But amidst all this, unnecessary deaths from cardiac arrest are still happening.

It is important now, more than ever, to spread the message about the simplicity and effectiveness of chest compression-only life support and how every citizen can easily save a life whilst keeping themselves safe. I am very proud to support the efforts of IRC in their continued efforts to raise awareness about this important campaign.

All best wishes

Dear Dr Rao,
Namaste.
Hope you are doing very well.

As one of the Co-Chairs of the ILCOR World Restart a Heart (WRAH) initiative, I am very much impressed thankful that IRC was and is one of our most active partner in our global activities to increase bystander CPR rates worldwide – be it with creating a postal stamp for resuscitation, creating videos, involving medical students and/or training more than 500,000 people face-to-face during WRAH 2019. We all know that the COVID-pandemic has a huge impact on all aspects of life at the moment – and sadly in particular in India during these days – and also creates problems for an awareness campaign like WRAH.

Despite that, we cannot and will not forget about it during these difficult times because there are still a lot of lives lost due to cardiac arrest, and cardiac arrest is also a severe “pandemic” all over the world. Since people are spending even more time at home now, they are also more likely to be in a position where they need to resuscitate a family member or friend and will be happy for any training they received, even if this is done virtually. There are most creative ways to keep the awareness campaign alive using social media or virtual trainings. IRC has



Dr. Andrew Lockey
Vice President
Resuscitation Council, UK

successfully managed this situation during the last year and currently and will certainly keep going on like that. So, please stay safe and healthy, and keep going on this most exciting move to save hundreds of thousands of lives worldwide every year together.

Thank you very much.
With best regards



Bernd W. Böttiger,
M.D., M.L., D.E.A.A., F.E.S.C., F.E.R.C.,
F.A.H.A. Chairman, German Resuscitation
Council (GRC)



Dr. TV Ramakrishnan
Prof and HOD Emergency Medicine
SRMC Chennai

Dear Dr. Chakra Rao and the Team,
 I congratulate you for all the efforts you have put in to bring Indian Resuscitation Guidelines for all to train Medica, Para-medics, school children and laymen in a very cost-effective way.

The Indian Resuscitation Council (IRC) is the brainchild Dr. SSC Chakra Rao, Past President of ISA with the objective to develop the Indian guidelines for Resuscitation. The idea is to make training cost-effective while ensuring quality. The support extended by the Indian Society of Anaesthesiologists has been immense. The scope of training includes health care personnel as well as the lay public. The following guidelines are being formulated

- Basic Life support – Adult, Children and Infants including Choking

- Drowning**

- Advanced Cardiac Life support**

- Post-resuscitation care**

A task force was created for each of these guidelines. Each task force is headed by a coordinator.

The members of this task force meet regularly and discuss and this activity is overseen by the core committee.

There is a dire need to impart education and training in emergency care for the health care professionals in our country. This will definitely help in early recognition of life-threatening problems and to provide early treatment thereby reducing mortality. It is imperative that the training be made accessible to all at a reasonable cost. Medical colleges and hospitals must insist on this certification for recruitment for jobs. This will ensure that everyone is trained and certified. Imparting practical skills and assessment of the participants is always a challenge. This is possible only if the skill labs are strengthened in all the medical, nursing and paramedic colleges. Regular training with manikins is very important to reduce the decline of practical skills. Developing cost-effective manikins will go a long way in ensuring the skill labs are adequately stocked with training material.

Training manuals for BCLS (BLS) and CCLS (ACLS) have been developed, copyrighted and Trade-Mark Registered. The guidelines proposed by the IRC will definitely help us achieve the objectives outlined above.

The aim is to establish a Comprehensive Resuscitation Training Center (CRTC) in every medical college in India and train all medics and paramedics to improve survival after Sudden Cardiac Arrest even outside the hospital. The endeavour to make Every Citizen A Lifesaver.

I wish a separate society will be registered soon to have a place in ILCOR. I wish the Indian Resuscitation a Great Success.



ISA
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The Indian Resuscitation Council (IRC) under the banner of the Indian Society of Anaesthesiologists (ISA), has never looked back since its inception in 2017. Over the years it has grown substantially both in the field of research and training activities. Today it stands rock solid and is the most recognized and looked for the platform in the field of Cardiopulmonary Resuscitation (CPR) both Nationally and Internationally. Publishing a 'News Letter', will be adding another feather in the cap. It gives me immense pleasure and honour to write this message in the inaugural issue.

The basic purpose of the News Letter will be to make the members and countrymen updated on the recent developments in the field of CPR. This will make every citizen aware of the activities that are being organized in different parts of the country. This will also act as a medium through which all the members can express their views and project their activities and indirectly can be a source of motivation for the others.

As one of the Director of the Scientific Committee of the IRC, I congratulate you from the core of my heart for this endeavour. This would not have seen the light of the day without your Vision and Mission for IRC.

Wishing the endeavour all the success!

Dear sir,

It gives me immense pleasure that the Indian Resuscitation Council is bringing out its first newsletter "lifesaver" in few days.

I would like to congratulate the IRC for its upcoming newsletter, which will help in many ways not only doctors, nurses and paramedics but also everyone in the society. kindly accept my heartfelt best wishes for this endeavour.



Prof Syed Moied Ahmed
Director, Scientific Committee
Indian Resuscitation Council



Sri Aditya Kumar
Awareness advisor
Indian Resuscitation Council

I am very happy that IRC is bringing out its First Newsletter with Dr. Mukul Chandra Kapoor as editor. The newsletter will definitely create awareness on CPR in India informing all day to day developments.

We have to achieve our goals to make BCLS training mandatory in the first year and CCLS in the final year of MBBS and nursing and paramedics IRC must start mandatory school CPR training also soon.

Dr. Lokesh Edara
Indian Resuscitation Council
International Coordinator



Global Association of Indian Medical Students (GAIMS) is a worldwide network of Indian Medical Students with its presence in more than 29 states and 542 medical colleges in India.

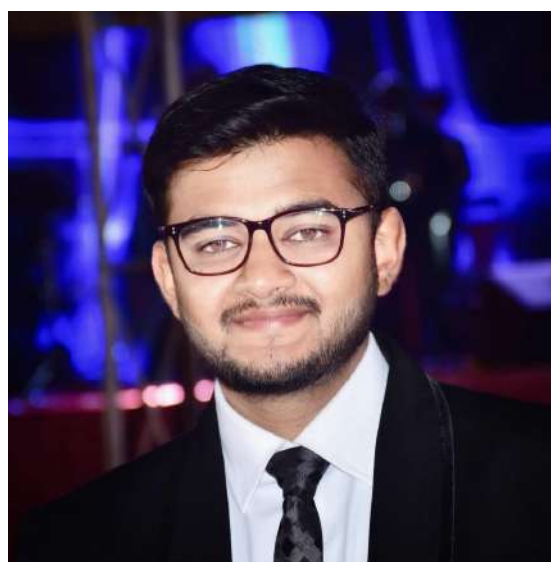


With our Vast Network and workforce, we are keen to join the vision of the Indian Resuscitation Council (IRC) that Every Citizen is a Lifesaver.

It's a fact that the mortality rate of Cardiac Arrest victims in India is very high as compared to any developed nation and that's due to inadequate training of CPR which if given early in these patients increases their chances of survival.

Every minute's delay in the resuscitation of the cardiac arrest victim reduces the chance of survival by almost 10%.

GAIMS and IRC can be a combined force of manpower and knowledge and under the visionary guidance of Dr. Chakra Rao sir, we can take this initiative to every corner of the country and provide adequate training to the citizens so that they can be a lifesaver.



Shubham Anand Jha
President, Global Association of Indian
Medical Students

Indian Resuscitation Council

GUIDELINES AND COURSES

By Dr. Rasesh Diwan

Resuscitation is the process of correcting physiological disorders in an acutely ill patient. It is a process of reviving someone from apparent death or unconsciousness. The process of care in an emergency is protocol-based and a healthcare worker requires special training to acquire the skill.

Under the initiation of the Indian Society of Anaesthesiologists, The Indian Resuscitation Council designed well-structured Indian guidelines which are very much evidence-based. The guidelines were published in 2017 and since then many courses are conducted and many healthcare workers and citizens of India are trained under various courses.

The Indian Resuscitation Council has come up with three courses; COLS (Compression only Life Support) BCLS (Basic Cardiopulmonary Life Support) and CCLS (Comprehensive Cardiopulmonary Life Support). In addition, IRC has also made a curriculum for Foundation course on resuscitation for medical students. IRC is planning for a separate dedicated programme for hospitals requiring NABH accreditation. I take the privilege to discuss the overview of all IRC courses, in this article.

COLS: Compression only Life Support

A person collapsing at any place and at any time is not an uncommon scenario, happening in our Society. Any active and working adult suddenly collapse and die due to cardiac arrest, before proper help arrives at the scene. They need some care by bystanders or accompanying persons who are not doctors or a trained health care worker. Compression only life support is intended for these victims. On immediate recognition of cardiac arrest, if cardiac compression is established, it provides perfusion with the oxygen within the body.

There is substantial oxygen within the lungs and blood of the victim. The aim of COLS is to establish perfusion to the brain and heart with the existing buffer of oxygen within the body. The consensus is there may not be a trained person to give breaths or may be reluctant to give mouth to mouth breathing. In this situation, it is of utmost importance to provide uninterrupted circulation by high-quality cardiac compression to the heart and brain. Another aim is to reduce the hypoxic neurological injury and a post-resuscitation neurological deficit.

IRC aims to train COLS, to all the citizens of the country, and particularly the young age group from school and colleges. The training includes immediate recognition of cardiac arrest and establishing uninterrupted high-quality cardiac compression. An emphasis is also given to calling the helpline number to ask for proper care. This training will improve on survival rate as well as on neurological outcome in the victims of sudden cardiac arrest outside the hospital. COLS fills the link between the arrival of an ambulance or a health care facility and sudden cardiac arrest.

IRC instructors and all ISA members provide COLS training by a graphical presentation and a lecture. Hands-on training is given individually to every attendee and a proper high-quality compression skill is taught. On successful training, an IRC certificate is issued to all trainee candidates.

BCLS: Basic Cardiopulmonary Life Support

Basic Cardiopulmonary Life Support is a well-structured guideline for cardiac arrest outside the hospital as well as inside the hospital.

It is a half-day course and is for all the doctors, medical students, Dental specialists, paramedics, physical therapists and clinical technicians and assistances, who are working in the hospital or ambulance and pre-hospital care. It also recommended for sports couch, trainers, lifeguards, teachers and social worker, who can be trained formally with good practical training.

This is a half-day course with interactive lectures and hands-on training for skills. The focus is on immediate recognition and starting CPR. Emphasis is given on checking carotid pulse and respiration with 5 to 10 seconds and confirming the cardiac arrest. The time frame in seconds is very important and is made clear to the students. Educating early use of defibrillators or automated electrical defibrillator is an important component of the BCLS course.

The quality of chest compression and technique of giving breaths either with mouth to mask or barrier device or with bag-valve-mask is very meticulously demonstrated and is being taught with hands-on training to all the students. It also covers the single rescuer or two or team of rescuers difference, highlighting the principle and skill to give the best outcome. The main focus is on high-quality CPR, teaching the important points of chest compression.

Adult choking and its management are also covered with practical demonstration.

In the end, an examination is carried out and on the successful result, the candidate is declared pass and an IRC certificate is issued to the student. The certificate is valid for two years.

CCLS: Comprehensive Cardiopulmonary Resuscitation

CCLS is a very complex course that requires two full days. It is structured for within the hospital sic patients. CCLS guideline is for all the doctors,

medical students and exclusive paramedics working in ICU, emergency department and operation theatres. Following are the features of the CCLS course.

1) BCLS Skills: Components of the BCLS course are briefly highlighted and the value of high-quality chest compression is emphasised. In place of cardiac arrest, there is no option other than early recognition, calling code blue or any other in hospital emergency response team and providing high-quality CPR.

2) Learning and interpretation of ECG and identifying pre-arrest ECG rhythms which could be life-threatening requiring strategic thinking and providing emergency care immediately.

3) Advance airway management: Till CPR is going on a definitive airway with an endotracheal tube is not a priority. However, the lecture and skill session include learning about airway devices and hands-on training of every student with all devices.

4) Training about Intravenous and intraosseous assessment.

5) Learning and understanding of varieties of regular defibrillators: This also includes the use of transcutaneous pacemaker and synchronised cardio-version and demonstrating practical use with arrhythmia simulators.

6) Relevant Pharmacology of drugs used for cardiac arrest and pre-arrest conditions: the dose, route, bolus or infusion technique and technique of administration are discussed in the lecture as well as on skill stations.

7) Team approach: the case scenarios are created and the students are allocated different roles. This is the most important session where there is the active participation of

students under understanding the emergency management with all the simulators, defibrillators with synchronised cardio version and TCP. There are three stations covering cardiac arrest, Bradyarrhythmias and techy arrhythmias scenarios provided by faculties. Every student's participation and involvement is judged and they are briefed to correct mistakes.

8) Special situations: CPR in pregnant lady, the difference in paediatric victims and other situations are discussed in a lecture.

9) Acute Coronary syndrome and Stroke are separately discussed and an overview of management is covered briefly.

10) Post resuscitation care after the restoration of spontaneous circulation (ROSC) is discussed. This lecture highlights the value of definitive airway, haemodynamic management, ventilation, relevant investigations and referral to specialised departments.

All the students are provided with BCLS & CCLS provider manuals from IRC. In these two days comprehensive course a full protocol-based training is given to managing a very sick patient with an immediate threat to life. The examination is conducted at the end and student's remediation and debriefing are done. Qualified students are issued with CCLS health care provider certificate from IRC.

TOT: Training of trainer's programme.

IRC conducts training of trainers programme periodically. The successful candidates are certified as BCLS instructors. Once they attend a CCLS provider course and get an audit done in subsequent CCLS course, they are upgraded to CCLS instructor. It is mandatory to teach at least 2 courses per year and also to update at two years with a short refresher's course. The guidelines get revised periodically and the same update is necessary for all the instructors.

Foundation Course:

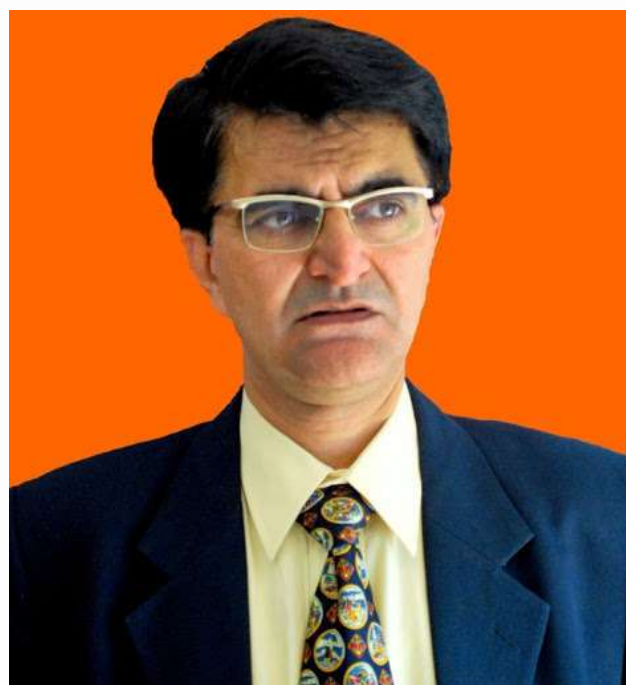
Every medical college is instructed to carry out a foundation course when the new students join

the medical college. Learning CPR is a part of the curriculum of the foundation course. This part is assigned to the Department of Anaesthesiology in each medical college. IRC has provided the basic teaching material in the form of presentation to all the medical colleges.

NABH Accreditation:

A separate course with the version of CCLS is designed to take care of accreditation requirement for various hospitals. IRC is providing the teaching material as well as certified instructors from IRC.

Indian Resuscitation Guidelines are very well accepted across the country by various associations and hospitals. We are thankful to the Indian Society of Anaesthesiologists for providing support to the council. We are especially thankful for the meticulous and extensive contribution of authors towards the drafting of our indigenous guidelines which are on par with international guidelines.



Dr. Rasesh Diwan
Director of Trainings
Indian Resuscitation Council, (IRC)



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We are pleased to present our solutions for IRC Courses. Going forward we will share our innovations and products for teaching COLS/BCLS in this Lifesaver News Letter.



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Dr. Baljit Singh
 Director, Scientific Committee
 Indian Resuscitation Council

Cardiopulmonary resuscitation in COVID-19 patient; important considerations.

Due to worldwide spread, WHO had declared Coronavirus disease as a pandemic in March 2020. There were a lot of uncertainties and ambiguities of treatment, to begin with, but as the disease progressed, the complexities of the process and its pathophysiology became more and more evident. It has now become clear that this viral illness like many is self-limiting with its impact lasting for about two to three weeks. It is the latter part of the disease process that is most dangerous due to the cytokine storm. In the operating theatre which is a controlled environment, anaesthesiologists take every precaution to minimise viral transmission, however, the probability of its spread still is quite high as there are certain aerosol-generating procedures that are inherent to the anaesthesia like airway manipulations. The danger of viral transmission to the anaesthesiologist is further enhanced due to the close proximity of the respiratory systems of the patient as well as the anaesthesiologist. And while hospitals have safety measures in place to lessen the risk of exposure during these procedures, there are no

such measures if cardiac arrest happens outside the hospital. Using animal models to simulate “witnessed” out-of-hospital cardiac arrest, Hsu et al compared the aerosol size and quantity generated by compressions before and after each defibrillation.¹ They also measured the aerosols generated from healthy human coughs and compared those to the aerosols generated from the swine. They reported that post-defibrillation, chest compressions generated significantly more, and larger, aerosols than chest compression before defibrillation.

It was concluded that defibrillation introduces a variable that creates larger aerosols that have the potential to carry respiratory pathogens such as the SARS-CoV-2 virus.¹ This happened to be the first study that proved that defibrillation followed by chest compressions is an aerosol-generating procedure.” Chan et al demonstrated that dispersion of the respiratory particles can take place from 42 to 99 mm during normal breathing and up to 460 mm from bouts of coughing after intubation. Besides the standard precautions like wearing PPE kits that are mandated to be observed, there has been the growth of various barrier devices to limit the spread. Various kinds of the terminologies like “intubation box” are used and these became integral to the anaesthetic procedures.^{2,3} Amidst the emergence of various kinds of intubation boxes, an aerosol device was described.⁴ The device uses a plastic sheet to create a chamber over the head and neck of the patient. After the airway manipulation, alcohol-based disinfectant is sprayed in the chamber before removing the sheet. This device has recently been modified by replacing the solid crossbars with metal tubes that have holes in the horizontal as well as the vertical part through which the aerosols can be sucked out to reduce the viral load inside the chamber.⁴

There are serious concerns about safety of healthcare workers during cardiopulmonary resuscitation. There has been a shift in the risk benefit balance and the consensus is evolving with regard to CPR in Covid-19 positive patients. The opinions are divided on the consensus, whether health care workers (HCWs) should perform CPR on COVID-19 patients or not. The argument for not attempting CPR on hospital patients with COVID-19 without ensuring personal protection is therefore justifiable, even though it may be disagreeable. General principles mainly aim at the reduction of exposure of COVID-19 and the risk of aerosolization and prioritization of oxygenation and ventilation. For out of hospital cardiac arrest, the face of the patient should be well covered a plastic sheet or with a piece of cloth as per the availability.

It should only be Compression only life support (COLS)⁵. For the safety of the healthcare worker, mouth to mouth should not be done with or without a device. Chest compressions should be done at the rate of 120/min as per the COLS protocol. When the AED becomes available, defibrillation should be done as soon as possible to reduce the risk of cerebral injury.

For the in-hospital patient, a continuous watch should be kept on those who may require CPR and alert should be issued to the Code Blue team also so that they are ready with the PPE kit. COLS should be immediately instituted. To minimise the aerosol dispersion, leave the mask on the patient's face and if the face mask is not there, start passive oxygenation with non-rebreathing mask. All airway interventions are aerosol generating procedures. Ventilation with bag and mask carries higher risk than supraglottic airway devices and tracheal intubation. All the airway manipulations need to be done by the most experienced person to achieve first attempt success.

After tracheal intubation, HME viral filter should be placed between the tube and the circuit to reduce aerosol spill over. If possible, cover the laryngoscope blade with disposable plastic or a glove. Use of video laryngoscope and mechanical chest compressor may be considered if available as these would keep the healthcare worker away from the patient. In India, do-not-resuscitate orders are not legalised, thus the risk benefit ratio must be considered.

To summarise, CPR using COLS protocol should be initiated when the arrest is resumed to be either cardiac origin or has a hypoxic aetiology. If the status of the patient is unknown, it would be wise to assume that patient has COVID-19 infection and all precautions need to be observed. If the cardiac arrest occurs out-of-hospital, Compressions only Life support should be performed after covering the mouth and nose of the patient with the face mask or cloth or a plastic sheet covering the head and neck and torso. Defibrillation should be considered early. Intubation boxes or any aerosol containment device, if available, may be used to minimise aerosol spill over into the environment. During in-hospital cardiac arrest, patients should be shifted to a negative pressure ventilation room and health workers should wear personal protective equipment for their safety.

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RESUSCITATION FROM IN-HOSPITAL CARDIAC ARREST IN COVID-19 PATIENTS: OUTCOMES AND DILEMMAS

Within months of the COVID-19 pandemic reaching India, the Indian Resuscitation Council responded rapidly by framing and publishing guidelines for cardiopulmonary Life Support for patients with suspected or confirmed coronavirus disease experiencing in-hospital cardiac arrest (IHCA).¹ These guidelines modified the existing comprehensive cardiac life support guidelines² to account for the pathophysiology of COVID-19 and importantly, to minimise the risk of transmission of the SARS-CoV-2 virus to health care workers involved in resuscitation. While the safety of the rescuer has always been a major principle in resuscitation and disaster management, this acquired a new dimension during the pandemic. The world has remained in the throes of this pandemic for more than a year now.

What are the outcomes of CPR in COVID-19 patients who suffer an IHCA? In a single-centre study from Wuhan, the epicentre of the outbreak, only 1 out of 136 patients who has an IHCA survived with a favourable neurological outcome at 30 days.³ Two studies from the USA also reported dismal outcomes. Among 1309 patients hospitalized with COVID-19, 60 (4.6%) developed IHCA and underwent CPR. None survived hospital discharge. Notably, at the time of cardiac arrest, many patients had progressed to multi-organ failure (MOF), as 79% of patients were receiving mechanical ventilation, 33% renal replacement therapy, and 46.3% vasopressor support.⁴ In another study, 63 out of 1,094 patients hospitalized for COVID-19 suffered from IHCA and received CPR. Similar to the previous study, many patients had sepsis and MOF: 66.7% of patients developed septic shock, and 84.1% had acute respiratory distress syndrome, and before in-hospital cardiac arrest, 81% were on a ventilator, 60.3% were on vasopressors, and 39.7% were on dialysis. 84% of the IHCA occurred in the ICU. The in-hospital mortality was 100%, and the authors suggested that CPR could be futile in COVID-19 patients suffering IHCA.⁵

Why are outcomes so dismal? Most patients had progressive disease or MOF for which there was no effective treatment. Many patients presented with non-shockable initial rhythms. Delay in the initiation of CPR due to the time required for donning personal protective equipment may also have contributed to poor outcomes.⁶

What are the implications of these data for planning, policies, and guidelines for CPR in patients with COVID-19 suffering IHCA? These data certainly do not warrant the blanket conclusion that CPR should not be offered to such patients. Certainly, in young patients experiencing sudden deterioration, pulmonary embolism, myocardial ischemia, or other correctable events should be offered CPR. In patients with progressive disease who continue to deteriorate, frank and honest discussion with families must be initiated. This can be challenging considering that family members may also be in isolation if afflicted by COVID-19, or in quarantine. During the second wave in India, in many parts of the country hospital resources were overwhelmed, and basic resuscitative drugs such as oxygen were in short supply. CPR would almost certainly fail in such circumstances. The extremely low likelihood of benefit from CPR should be weighed against the dangers of the transmission of disease to staff due to aerosol generation during CPR that occurs during resuscitation.⁷ Would it be appropriate to initiate a Do Not Attempt Resuscitation (DNAR) order in such situations?⁸ We urgently require data of outcomes of resuscitation from IHCA in COVID-19 patients from India. It is vital to discuss these issues of implementing DNAR orders for appropriate hospitalized patients in the current circumstances and in anticipation of further “waves”. The Indian Council of Medical Research (ICMR) recognizes DNR as a valid

medical decision where, in the best judgment of the treating physician, CPR would be inappropriate, nonbeneficial, and likely to prolong the suffering of the patient.⁹ While CPR may confer a little benefit and cause considerable harm, effective palliative care offers considerable benefit to patients and families in many situations, with minimal harm.⁷ Thus integration of palliative care in the response to severe and critical COVID-19 is essential.

This pandemic has thrown up several dilemmas, both from the point of view of medical management, as well as the choices to be made considering the benefits to patients and harm to both patients and health care staff. It is time that these issues are discussed with data available from Indian hospitals, and solutions are found and implemented. Appropriate use of DNAR orders and integration of palliative care may well be the way forward.

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**Cardiopulmonary Resuscitation
 guidelines formulation, teaching,
 training and sharing - Essence of
 Indian Resuscitation Council (IRC).**

**“It will never rain roses: when we
 want to have more roses, we must
 plant more roses.” — George Eliot.**

The improvement in the provision of health services requires plantation of the seeds of knowledge along with the delivery of this knowledge along with skills. The timely provision of cardiopulmonary resuscitation (CPR) to a cardiac arrested victim by an appropriately trained person remains the most important aspect for an optimal outcome. The “timely” and “trained” terminology is paramount

when we talk about any emergency health care services.

Though the guideline from various professional bodies around the globe does exist they are not well suited to Indian subcontinent due to various infrastructural and geographical diversities. A single universal guideline does not exist to date that would be applicable across the globe. This is the reason the various countries have developed their guidelines that suits to their specific requirement based on educational level, and other infrastructure and resource-related issues.

At times, the guidelines have been variously modified by various small groups according to the need of India and are used for teaching and training across India. However, there remains limited by variability, different terminology and its lack of uniformity. Also, “timely resuscitation” is affected by a lack of awareness and training in laypersons. This is due to fact that the cardiac arrest occurs mostly outside the hospital and the immediate person to provide resuscitation is the common man.

Indian Resuscitation Council (IRC) has planted the seeds around five years back by a novel initiative in the field of resuscitation. The seed has taken the shape of the sapling and it’s growing further with water and nutrition from a very dedicated pool of stalwarts in this field. The Indian Society of Anaesthesiologist (ISA) remained the forerunner for this novel initiative.

IRC formulated the CPR guidelines which fit in the Indian context. There is a growing interest in high-quality hands-on workshops for medical professionals in

India to manage in- and out-of-hospital adult cardiac arrests for better outcomes. IRC is working intending to enhance resuscitation outcomes in cardiac arrests in India through high-quality resuscitation educational and hands-on training workshops.

Based on the need for the guidelines suited to our country, IRC and ISA along with other academic societies took the initiative for developing the first Indian Cardiopulmonary Resuscitation (CPR) Guidelines. There is the activation of the institutions and individuals involved in Resuscitation throughout India and led to positive outputs in the form of guidelines which have been published in the peer-reviewed indexed journal - Indian Journal of Anaesthesia.

These contain three separate stand-alone guidelines related to CPR and include:

Compression-only Life Support (COLS) for cardiopulmonary resuscitation by a lay person outside the hospital.

The timely management of the victim with cardiopulmonary arrest is paramount. It may not be possible to provide immediate medical care by the trained person when the victim is outside the hospital. The inclusion of common man after their proper training would be beneficial to improve the outcome of the victim. However, the medical steps to be taught to a layperson should be kept simple and easy to follow and yet evidence-based. The Compression only Life Support (COLS) provides an easy, algorithmic stepwise approach for resuscitation of the victim with cardiopulmonary arrest by the lay person.

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Link:

<http://www.ijaweb.org/text.asp?2017/61/11/867/218099>

Basic Cardiopulmonary Life Support (BCLS) for cardiopulmonary resuscitation by trained paramedics and medics outside the hospital.

The Basic Cardiopulmonary Life Support (BCLS) has been made for the management of the adult victim with cardiopulmonary arrest outside the hospital. It is directed to trained health care professionals. The BCLS has been formulated as an easy to follow, algorithmic stepwise approach. The guideline has considered resource and infrastructure-related issues. BCLS emphasizes four main core links for optimal outcome. These links include early recognition and activation; early high-quality CPR, early defibrillation and early transfer to the health care facility.

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Comprehensive Cardiopulmonary Life Support (CCLS) for cardiopulmonary resuscitation by trained paramedics and medics inside the hospital.

Comprehensive Cardiopulmonary Life Support (CCLS) has been made for the management of the adult victim with cardiopulmonary arrest inside the hospital. The infrastructure of a health care facility may range from well equipped critical care unit to lesser equipped peripheral wards and outpatient clinics. So we need an algorithm to have options and suitable for all these resource constraint facilities. CCLS has accommodated these issues for easy follow-up and thus would be universally acceptable for all type of health care facilities. Thus CCLS comprises all components of basic and advanced CPR steps for the

management of patient with cardiopulmonary arrest inside the hospital. CCLS provides a simple, algorithmic stepwise approach for the management of adult patient with cardiopulmonary arrest.

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The guidelines need to be reviewed and revised timely and IRC stands behind this and shall update as and when required. However, the promulgation of any training programme requires support from all the stakeholders and end-users. So, we urge all the concerned to support the IRC for the spread of awareness and in providing teaching and training of this structured CPR training programme across India and other countries as well. IRC is working in close collaboration with other international resuscitation councils, and this helps to get the inputs and share their experience for running the IRC activities smoothly with good quality.

Finally, I wish every citizen to be a "Life Saver" and the support and blessings are required from each professional and individuals at large.

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Continuing updation and revision of the Indian Resuscitation Council guidelines.

Dr. SSC Chakra Rao, Dr. Rakesh Garg.

**“I cannot say whether things will get
better if we change; what I can say is
that they must change if they are to
get better.” — Georg Lichtenberg**

The practice of evidence of medicine

remains the soul of good medical practice. Evidence-based medicine (EBM) is "the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients." The EBM aims at the integration of the experience of the clinician, the values of the patient, and the best available scientific information in making the appropriate decision for patient care. Since there is always a emerging evidence either in form of the experience gained or changes in values or emerging scientific information, there is a need to review the existing protocols and guidelines and revise them accordingly. The same is applicable in the field of resuscitation as well. The Indian Resuscitation Council (IRC) is also committed to not only the provision of structured resuscitation programs and involvement in the provision of teaching and training but also in updating the cardiopulmonary resuscitation (CPR) guidelines, as and when required.

India has an ocean of intellectuals with not only updated knowledge but also vast experience. The value consideration among medical professionals is unparalleled. Taking this to advantage, IRC has an excellent team that remains committed to IRC and the achievement of its mission. The main motto of IRC is to bring out Indian guidelines in resuscitation, wide popularity for resuscitation, impart training to as many laymen, and professionals. To achieve the task, IRC decided to collaborate with other professional societies, associations, and institutions involved in resuscitation. With its first baby step on 16th April 2017 at Hyderabad with the meeting of 40 resuscitation enthusiasts and academicians, a foundation was laid.

This led to series of meetings and deliberations and finally culminating in an, now very popular, CPR guidelines - Compression-only Life Support (COLS), Basic Cardiopulmonary Life Support (BCLS), Comprehensive Cardiopulmonary Life Support (CCLS). Subsequently, series of training of trainers (TOT) and providers courses were conducted throughout India.

With the emergence of the COVID-19 pandemic, when physical courses were on hold, online awareness programs and discussions continued. The IRC also came with CPR in COVID-19 patients' guidelines which was well appreciated across the globe.

It was also realized to extend the guidelines further and add on to other aspects of resuscitation in a well-structured evidence-based approach. IRC decided to expand the members involved in these guidelines' formulations, in addition to the core members and further expansion of task forces was decided. The standard and quality of working of task forces were well maintained. The roles and responsibilities of the IRC task force members for the formulation of further extended guidelines and updating/revising guidelines are as per standard and follow international norms in this field. The overview of the guides to task force members include:

- Formulate and prioritize **PICO** questions (**PICOT** - **P** - Patient, Problem, Population, **I** - Intervention, **C** - Comparison, Control, Comparator, **O** - Outcome, **T**- Time).
- Review of studies identified for inclusion in specific PICO questions

- Generate international consensus on science and treatment recommendations for publication
- Identification and prioritization of knowledge gaps
- Mentor early career scientists participating in the work of the Task Force
- Respond to public commentary on the Task Force output.

All the task force members are extremely committed. The work of the task force is undertaken predominantly by timely meetings, online interactions, and discussions. Additional opportunities are available to lead specific evidence evaluation as a systematic reviewer or content expert for specific PICOT questions. All the task forces are helped and supported by the core team of experts as well.

Not only the IRC is expanding its guidelines with task forces, but also IRC is committed to International standards and participating in various international meetings and deliberations with an active role and participation. IRC has been an observer member to ILCOR, (International Liaison Committee on Resuscitation) and other resuscitation councils and professionals bodies like the Global Association of Physicians of Indian Origin and American Association of Physicians of Indian Origin. IRC has been involved in the international project of World Restart A Heart Day led by ILCOR and contributing maximally. We shall urge all to join hands with IRC in various capacities to spread awareness related to CPR and also to teach and train everyone in CPR to achieve the IRC motto of **“Every Citizen a Life Saver”**

Long Live IRC.



**The Young Resuscitators Network
| Tashvi Shah |**

Navrachana Higher Secondary School, Sama

How COLS- Compression Only Life Support- training can be imparted in schools.

Usually, when someone collapses due to cardiac arrest i.e. when heart suddenly stops (in a public or even less-crowded area), the initial reaction of people is unnecessary panic. Chaos ensues, and instead of actually doing something to help the victim, bystanders stay passive and spectate, and calling for help is usually thought of at a later time. And even then, taking into account Indian circumstances and scenarios, ambulances might take a very long time to arrive due to traffic, among other reasons.

The chance of survival of a cardiac arrest victim reduces by 7- 10% with every minute's delay in resuscitation, but if Compression Only Life Support-COLS is done immediately, their chances of survival increase two-fold to three-fold.

Therefore, it is crucial for children to learn how to sustain and preserve life, through COLS training from a young age in schools. With their considerably sharper focus and presence of mind, curiosity, and, above all, a desire to help those in need, their energy and enthusiasm could be spent on something useful, and potentially life-saving.

We can initiate a training program called the "Young Resuscitators Network" in schools. Regular training sessions will be carried out in schools as a part of the study curriculum. In these sessions, professionals will impart COLS training to children; and over time,

trained children will impart training to other children, and the cycle would continue from school to school, forming a network of Young Resuscitators spanning large areas. A child has the ability to be spontaneous and think a few steps ahead, and so might just be able to save time—and a life. The children would thus have Information (how to save lives), Interest (a want to save lives), and Intention (a wish to save lives), the three I's, and would do so until professional medical aid arrives.

A constant medium, a mobile application, can be used to connect the network's various members. Anyone can download the app. Only fully trained children will be made official members of the Network and their names will be added to the app. If somebody collapses under suspected cardiac arrest, an alert can be sent to all the network members through the app. On pushing the alert button, the location of the device alerting the network would be automatically switched on and sent to Young Resuscitators so as to not waste any valuable time in typing out the location of the cardiac arrest victim. Pushing the alert button would also automatically notify the nearest ambulance and even the police if the victim is in a public place.

The nearest member can rush to the site of the incident and start performing COLS. Of course, a responsible parent or guardian would be required for transport. Additional features of the app would include educational videos regarding the different aspects of COLS in detail, teaching new members how to recognize signs of cardiac arrest, the proper method of performing COLS, and more information on the working of the Network.

'Children are the future of the nation.' – Jawaharlal Nehru.

So not only will they carry forward the legacy of progress and prosperity in future but also the safety of fellow citizens. This next-generation can bring change, make a difference, and save lives. We can train to sustain.



Laerdal

helping save lives



Q CPR Classroom App



CPR Training App



We know good CPR gives higher survival rates, and the idea about scoring is to reflect how good the performance really is for the patient.

Laerdal's CPR scoring algorithm provides learners with an accurate score on their CPR performance and guides them on how to give even better CPR.

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Real-time CPR feedback
Check how every learner is performing with feedback on depth, release, rate and ventilations.

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Connect every manikin to the instructor app with stable and reliable one-click Bluetooth Smart connection. Built-in tutorials and how-to videos.

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Mr. Mangesh - 7550077722

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Early defibrillation within the first 5 minutes is a key step in the chain of survival. Our training solutions allow the layperson and healthcare provider to accurately practice using an AED within a safe learning environment.



Gallery of Photography





Dr. Jamuna and Team

S.V Medical College, Tirupathi



Dr. Y Nirmala,
Dr. S Sreenivasa Rao,
Dr. Suresh
Dr. Radhika & Team

ACSR Govt Medical College, Nellore



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**Pinnamaneni Siddhartha Institute of Medical Sciences,
Chinna outapalli**



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Dr. Sulekha Saxena
Mr. Ram Naresh and Team

BCLS training at Vivekanand polyclinic



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Dr. Vinayak Mali and Team

Apple Saraswati Hospital, Kolhapur



Dr. Rekha Solanki and Team

**Gujarat Cancer and Research Institute,
Ahmedabad, Gujarat**



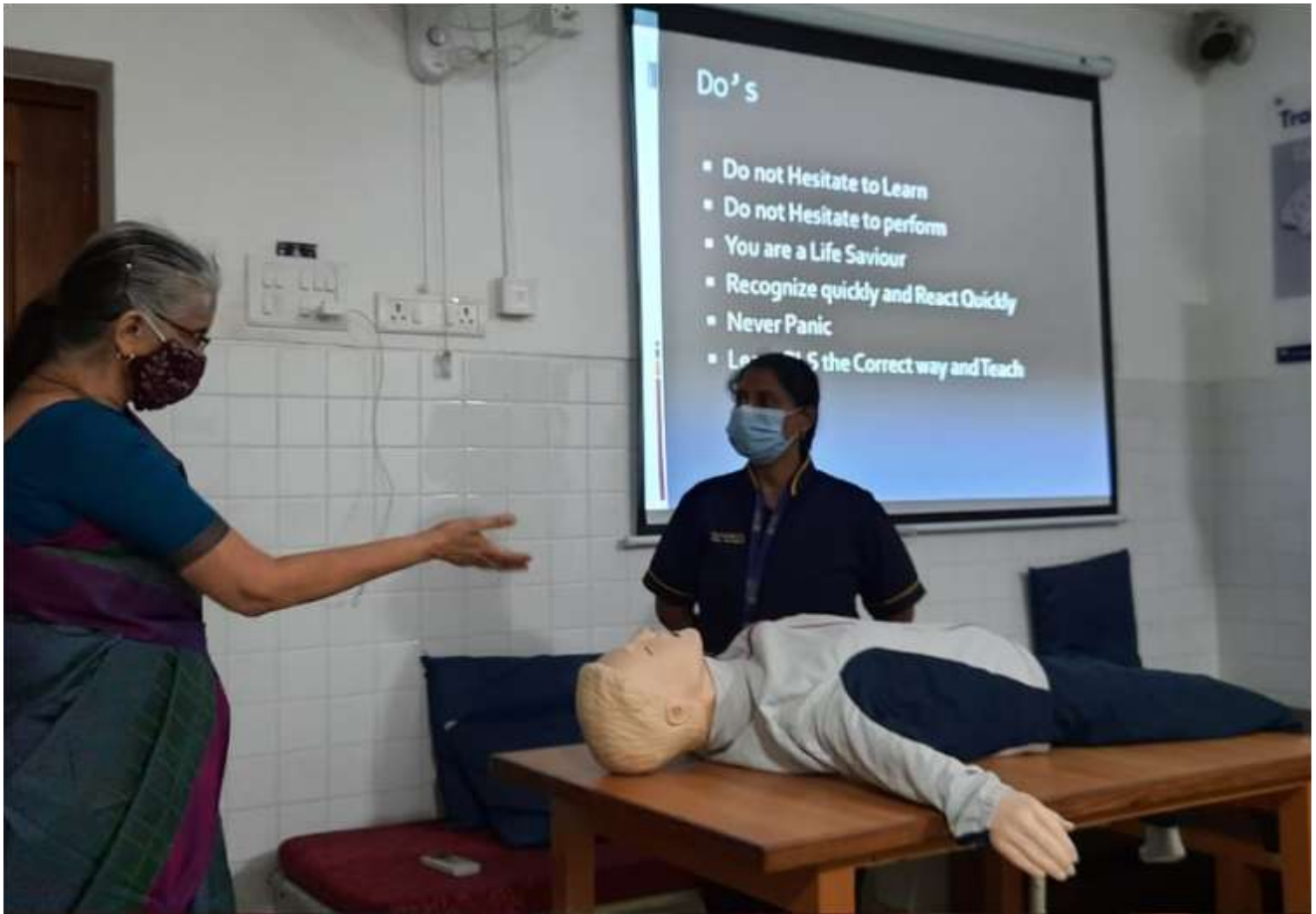
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Dr. Sumedh Jajoo,
Dr. Mrinalini Fulzele,
Dr. Abhinav Lambe and Team

**BCLS courses at MGIMS,
Sewagram Wardha Maharashtra**



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Dr. Venugopal Nori
Dr. SVSR Reddy and Team

**Sriram Dental Hospital and Implant Center,
Rajahmundry**



Dr. Vasanthi Vidyasagar

Hansa Rehabilitation Center, Chennai



Dr. Nandita Mehta
Dr. Shika Sharma
Dr. Anjali Mehta and Team

ASCOMS, Jammu



Dr. Madhuri Limaye,
Dr. Vaishali Chavan,
Dr. Sohani,
Dr. Yawatkar and Team

ISA Satara, City Branch



Dr. Muneer khanna
Dr. Das Prasad and Team

Guntur Medical College, Guntur



Check response

Non responsive

Shout for help, Call 1066 / Local emergency number.


Get AED/Defibrillator and emergency equipment's

Dr. Pushpa R Lengade

Dr. Chandrika Dutt, Bengaluru




Tashvi Shah, Vadodara



CARDIOPULMONARY RESUSCITATION TRAINING SEMINAR (For Central Zone)

Date: 16th April 2021, Friday
Time: 8:30pm, Virtual



CPR Trainer:
Dr. Arvind Patel
Senior Anesthesiologist
Vadodara

CPR Central Region Coordinator: Rtn Dr Jayant Sastry



Dr. Chetna Agrawal
Coordinator, ISA IRC, Vadodara

ISA COLS Group, Vadodara



Dr. Choba Singh Langpoklakpam and Team

RIMS, Imphal, Manipur



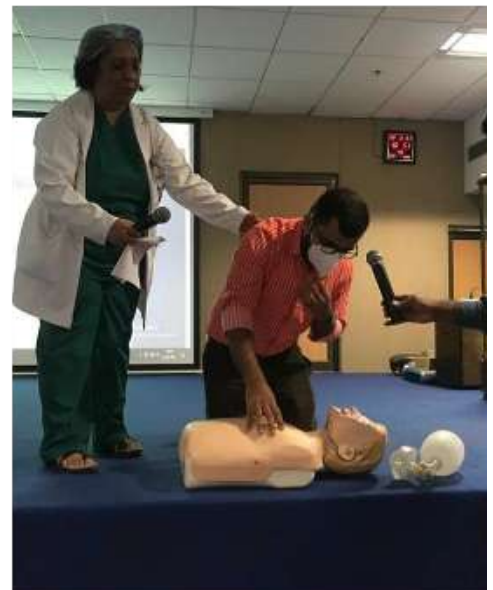
Dr. Anal Kumar
Dr. U Sudheer
Dr. Nasifa and Team

Rangaraya Medical College, Kakinada



Dr. Ram Siva Naik
Dr. Sree Latha
Dr. Raghavendra
Dr. Chandra Sekhar
Dr. Somappa and Team

Kurnool Medical College, Kurnool



Dr. Padmaja Durga
Dr. Ashima Sharma and Team

National Health Mission, NIMS Hyderabad



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Dr. Rasesh Diwan,
Dr. Heena chhanwal
Dr. Tarlika Parimal and Team

ISA, Ahmedabad



Dr. Manjusha Shah and Team

Atmavikas Sanshodhan Kendra, Mumbai



Dr. Shashank Mohole
Dr. Sachin Lawande
Dr. Snehlata Sayamber
Dr. Anjali Raut and Team

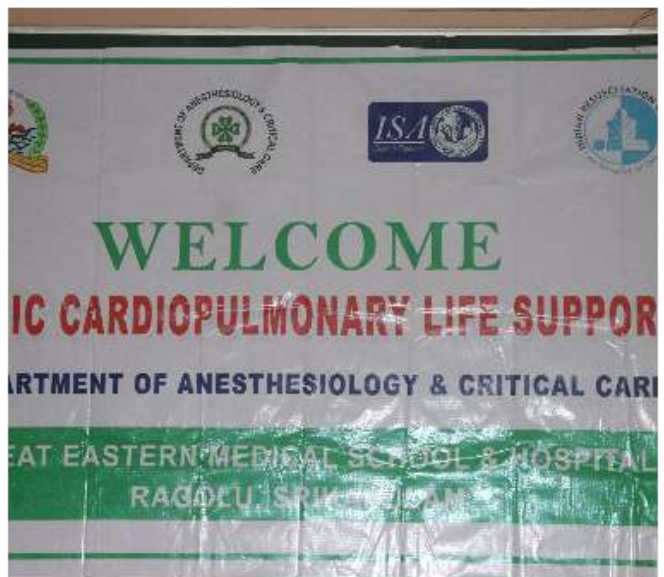
Chaitanya Eye Hospital, Ahmednagar



**Society Of Anaesthesiologists Pimpri-Chinchwad(SAPC) ,
Pune, Maharashtra**

Program Coordinator:
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Instructors:
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Dr. Seema Suryawanshi
Dr. Sumeet Lad
Dr. Sonali Sawale and Team



Dr. Kalyan Chakravarthy
Dr. Haveela Twinkle and Team

GEMS & Hospital, Ragolu, Srikakulam



Dr. Ninad Chopade, Dr Rahul Bhamre
Dr. Rahul Wagh, Dr Sujit Bhamre
Dr. Anita Nehete and Team

ISA Nashik



Dr. Simantika Ghosh and Team

Woodlands Enclave, Kolkata



Dr. Komal Likhar
Dr. Vijay Patil
Dr. Anjali Borkar and Team

ISA, Nagpur City Branch



Dr. A.S. Kameswara Rao, Dean, KIMS Amalapuram and Team

KIMS, Amalapuram



Dr. Chetna Agrawal

Mrs. Universe 2019, Guangzhou, China



Faculty of GITAM Institute of Medical Sciences and Research Visakhapatnam.



Presents

CPR Training Program

16th March, 2021, Tuesday | | 10:00-2:00 PM

Inauguration



Dr CV Rao
Pro Chancellor Gitam

Speakers



Dr. S S C Chakra Rao



Dr SVSR Reddy



Dr. Reddy NLS Presad



Dr P Srinivasa Rao



Dr. K. Rajeshwara Rao



Dr Venu Gopal Nori



Dr Paul O Raphael



Dr Rasesh Diwan

Program Agenda:

- 10:00 AM: Inauguration Dr CV Rao
- 10:15 AM Introduction Dr SSC Chakra Rao
- 10:30 AM CCLS Core Links Dr SVSR Reddy
- AED. Dr Reddy NLS Presad
- CCLS Algorithm. Dr P Srinivasa Rao
- ECG Dr Rajeshwara Rao
- Case scenarios Dr Venu Gopal Nori
- Team Dynamics Dr. Paul O Raphael
- Questions and Answers Dr. Rasesh Diwan
- Valedictory



Digital Partner



TRAINING OF TRAINERS

TOT

TOT 1



28th January 2021



Indian Resuscitation Council
Presents



TRAINING OF TRAINERS II

Inauguration By


14th March, 2021 Sunday
09:00 AM - 02:00 PM



Prof Sunil Kumar
Director General
Health Services (DGHS)
Ministry of Health and
Family Welfare, Govt of India

**Every Citizen
A LIFE SAVER**


Speakers



Dr SSC Chakra Rao
Chairman
Indian Resuscitation
Council



Dr Mukul Chandra Kapoor
Director
Scientific committee



Dr Rakesh Garg
Director
Scientific Committee



Prof Syed Moied Ahmed
Director
Scientific committee



Dr Rasesh Diwan
Director
National Trainings



Prof Baljit Singh
Director
Scientific committee

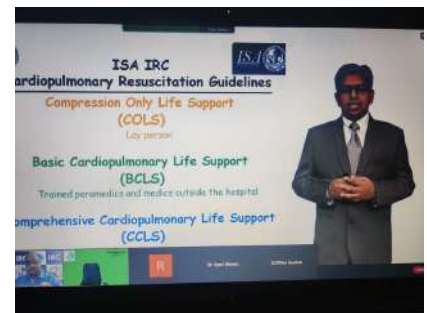
Program Agenda

9:00 AM Inauguration Prof Sunil Kumar
 9:15 AM Introduction Dr SSC Chakra Rao
 9:30 AM Need for Indian Resuscitation guidelines Dr Mukul C Kapoor
 Core Links Video by Dr Rakesh Garg
 Frequently asked questions Dr Syed Ahmed Moied
 Principles of Adult Teaching Skills Dr Rakesh Garg
 An overview of IRC Courses Dr Rasesh Diwan
 Quality Assessment Dr Baljit Singh
 Question & Answer
 Valedictory

Digital Partner









Indian Resuscitation Council
Presents



TRAINING OF TRAINERS III

25th April, 2021 Sunday | 09:00 AM - 02:00 PM

Inauguration & Chief Guest



Shri Mayank Kumar Agarwal
Director General Doordarshan
Prasar Bharati

**Every Citizen
A LIFE SAVER**



Dr Rakesh Garg
Director
Scientific Committee

Speakers



Dr SSC Chakra Rao
Chairman
Indian Resuscitation
Council



Dr Rasesh Diwan
Director
National Trainings



Aditya Kumar
JPRO AIIMS
New Delhi

Directors of Scientific Committee



Prof Syed Moied Ahmed
Director
Scientific committee



Dr Mukul Chandra Kapoor
Director
Scientific committee



Prof Baljit Singh
Director
Scientific committee

Program Agenda

- 9:00 AM Inauguration by: Shri Mayank Kumar Agarwal
- 9:15 AM Introduction by: Dr Chakra Rao
- 9:18 AM Need of Indian Resuscitation guidelines: Dr Mukul Chandra Kapoor
- 2. Principles of adult teaching, Teaching skills: Dr Rakesh Garg
- 3. Frequently asked questions: Dr Syed Moied Ahmed
- 4. Core links: Dr Rasesh Diwan
- 5. Quality Assessment: Dr Baljit Singh

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Sh. Mayank Kumar Agrawal
DG Doordarshan, Prasar Bharati

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Dr. Mukul Chandra Kapoor
Editor in Chief
Indian Resuscitation Council

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Designed by *Arun. G*

IRC newsmedia, Kakinada

/ Indian Resuscitation Council

