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Implementing a Comprehensive Emergency Care and Life Support Course in a Low- and Middle-Income Country Setting: A Survey of Learners in India

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Abstract : Introduction: The lack of Emergency Care Services (ECS) is a cause of extensive and serious public health problems in low- and middle-income countries (LMIC), Many LMIC countries have ambulance services that allow timely transfer of ill patients but due to poor care during the 'Golden Hour' many deaths occur which are otherwise preventable. Lack of adequate training as evidenced by a study in India is a major reason for poor care during the 'Golden Hour'. Adapting developed country models which includes staffing specialty-trained doctors in emergency care, is neither feasible nor guarantees cost-effective ECS. Methods: Based on our assessment and felt needs by first-line doctors providing emergency care in 2014, Rajiv Gandhi Health Sciences University's JeevaRaksha Trust in partnership with the University of Utah, USA, designed, piloted and successfully implemented a 4-day Comprehensive-Emergency Care and Life Support course (C-ECLS) for allopathic doctors. 1730 doctors completed the 4-day course between June 2014 and December- 2020. Subsequently, we conducted a survey to investigate the utilization rates and usefulness of the training. 1662 were contacted but only 309 completed the survey. The respondents had the following designations: Senior faculty (33%), junior faculty (25), Resident (16%), Private-Practitioners (8%), Medical-Officer (16%) and not-working (11%). 51% were generalists (51%) and the rest were specialists (>30 specialties). Results: 97% (271/280) felt they are better doctors because of C-ECLS. 79% (244/309) reported that training helped to save life- specialists more likely than generalists (91% v/s 68%. $P<0.05$). 64% agreed that they were confident of managing COVID-19 symptomatic patients better because of C-ECLS. 27% (77) were neutral; 9% (24) disagreed. 66% agreed that training helps to be confident in managing COVID-19 critically ill patients. 26% (72) were neutral; 8% (23) disagreed. Frequency of use of C-ECLS skills: Hemorrhage-control (70%), Airway (67%), circulation skills (62%), Safe-transport and communication (60%), managing critically ill patients (58%), cardiac arrest (51%), Trauma (49%), poisoning/animal bites/stings (44%), neonatal-resuscitation (39%), breathing (36%), post-partum-hemorrhage and eclampsia (35%). Among those who used the skills, the majority (ranging from (88%-94%) reported that they were able to apply the skill more effectively because of ECLS training. Conclusion: JeevaRaksha's C-ECLS is the world's first comprehensive training. It improves the confidence of front-line doctors and enables them to provide quality care during the 'Golden Hour' of emergency. It also prepares doctors to manage unknown emergencies (e.g., COVID-19). C-ECLS was piloted in Morocco, and Uzbekistan and implemented countrywide in Bhutan. C-ECLS is relevant to most settings and offers a replicable model across LMIC.

Keywords : comprehensive emergency care and life support, training, capacity building, low- and middle-income countries, developing countries
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