

Available online at www.sciencedirect.com

Resuscitation

journal homepage: www.elsevier.com/locate/resuscitation

Letter to the Editor

Disseminating resuscitation competences beyond traditional ERC-CPR courses: The ERC refresher seminars



To the Editor,

Current resuscitation guidelines emphasize the need of cardiopulmonary resuscitation (CPR) education for healthcare professionals working in various settings.¹ Medical congresses attract a large number of health care providers and represent an excellent opportunity to refresh congress participants' CPR-competences.

We present the experience with European Resuscitation Council CPR-Refresher Seminars (CPR-RS) teaching resuscitation at congresses and reporting on participants' characteristics and attitudes of during the first five years after its implementation. **The CPR-RS teaching strategies, objectives, setting, and content are based on current ERC-guidelines²⁻³ and agreed upon by representatives of involved scientific associations.** CPR-RS adopt small group teaching in 90-min workshops, the typical duration for a congress session BLS-RS teach participants in-hospital two-rescuer BLS; ALS-RS outline key-points of ERC-algorithms.³⁻⁴ Participants are encouraged to attend full ERC CPR-courses to become certified CPR-providers. RS are registered on the ERC online course-system (CoSy; <https://cosy.erc.edu>). CoSy monitors quality and issues certificates of attendance for RS. An anonymised questionnaire evaluated the ERC CPR-RS over the years 2012–2016 with informed consent by the participants.

From August 2012 to August 2016, 14 CPR-RS were held with 2077 participants. Of these, 1138 attended the European Society of Cardiology (ESC) annual congress, 614 attended ESC-sister societies annual congresses (European Heart Rhythm Association, Acute Cardiovascular Care Association and Heart Failure Association), and 325 the Hellenic Cardiological Society congresses. The number of participants increased over the years (Fig. 1). ALS-RS attracted 1338 participants; 1019 attended BLS-RS, and 280 participated in both RS. Median age was 34 years (IQR: 25–46), younger than the congress attendants (only 16% of ESC congresses participants were younger than 36 years). More women (42%) attended RS despite lower ratio of women registered at ESC congresses (30%). About 60% of RS attendance originated from Europe, 16% from Asia, 8% from Africa, 5% from middle East, 3% from America 3%, and 2% from Oceania.

Results from the post RS survey: Most participants were male physicians practising in hospital and treating <5 cardiac arrests per year. Roughly, 20% of them never attended any CPR-courses before.

Those with CPR-courses, attended ALS in 35% and BLS in 57% before 2011. RS-duration was optimal for about 90% of participants, and satisfaction score increased from 67% in BLS-RS and 53% in ALS-RS in 2012 to 89% and 90% respectively in 2016 (Mantel-Haenszel χ^2 test: 5.38 ($p = 0.02$) for BLS-RS, and 24.1 ($p < 0.0001$) for ALS-RS).

In summary, the ERC CPR-RS are a well-established and excellent opportunity of high quality CPR-education for healthcare professionals at major medical conferences covering unmet needs. Participants from countries with well-established CPR education probably find short a refresher on their CPR-skills and knowledge during a congress very convenient. Congresses represent a unique opportunity for these 20% who never attended any CPR-training in the past to experience modern hands-on CPR-teaching.

Provision of attendance certificates, in contrast to formal ERC-providers' certificate, might limit delegates' interest, but the new

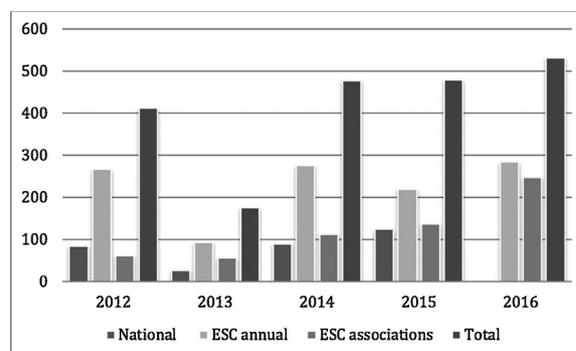


Fig. 1 – Number of participants according to year and Congress.

National: Hellenic cardiological Society, ESC: European Society of Cardiology, ESC Associations: Acute cardiovascular Care Association (2013–2015), European Heart Rhythm Association (2012), Heart Failure Association (2014–2016), Euro-heartcare (2016).

opportunity of the lifelong learning track for ERC-certified providers may allow recertification of their provider status in the near future.

Declaration of conflict of interest

NN: no COI

LB: no COI

MG: no COI

MK: no COI

RS: no COI

RG: ERC Board Director of Training and Education, ILCOR Task force Chair Education, Implementation and Team.

REFERENCES

1. Greif R, Lockey AS, Conaghan P, et al. European resuscitation council guidelines for resuscitation 2015: section 10. Education and implementation of resuscitation. *Resuscitation* 2015;95:288–301, doi: <http://dx.doi.org/10.1016/j.resuscitation.2015.07.032>.
2. Perkins GD, Olasveengen TM, Maconochie I, et al. European resuscitation council guidelines for resuscitation: 2017 update. *Resuscitation* 2018;123:43–50, doi: <http://dx.doi.org/10.1016/j.resuscitation.2017.12.007>.
3. Monsieurs KG, Nolan JP, Bossaert LL, et al. European resuscitation council guidelines for resuscitation 2015: section 1. Executive summary. *Resuscitation* 2015;95:1–80, doi: <http://dx.doi.org/10.1016/j.resuscitation.2015.07.038> Epub 2015 Oct 15. PubMed PMID: 26477410.
4. Soar J, Perkins GD, Maconochie I, et al. European resuscitation council guidelines for resuscitation: 2018 update — antiarrhythmic drugs for cardiac arrest. *Resuscitation* 2019;134:99–103, doi: <http://dx.doi.org/10.1016/j.resuscitation.2018.11.018>.

Nikolaos I. Nikolaou¹
Cardiology Department and Cardiac Intensive Care, Konstantopouleio General Hospital, Athens, Greece

Leo Bossaert¹
University Antwerp, Belgium, European Resuscitation Council, Niel, Belgium

Monika Grünfeld
Emergency Department, Community Health Centre Kranj, Kranj, Slovenia

Manuel Kuhner*
Department of Anesthesiology, Heidelberg University Hospital, Heidelberg, Germany

Ronald Silva
Department of Anesthesiology, Egas Moniz Hospital– CHLO, Lisbon, Portugal

Robert Greif
Department of Anaesthesiology and Pain Therapy, Bern University Hospital, University of Bern, Bern, Switzerland

¹The first two authors equally share the first authorship.

* Corresponding author.

E-mail address: manuel.kuhner@med.uni-heidelberg.de (M. Kuhner)

Received 15 August 2019

<http://dx.doi.org/10.1016/j.resuscitation.2019.08.027>

© 2019 Elsevier B.V. All rights reserved.