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## **Resuscitation Plus**

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### **Editorial**



# Announcement of a special issue on resuscitation education in the resuscitation plus journal



In Europe, the incidence of out-of-hospital cardiac arrest ranges between 67 and 170 per 100.000 inhabitants, with survival rates to hospital discharge between zero and 18%.<sup>1</sup> In comparison, the incidence of in-hospital cardiac arrest ranges between 1.3 and 2.8 per 1.000 hospital admissions, with survival rates to hospital discharge of 15 to 34%.<sup>1</sup> Effective cardiopulmonary resuscitation skills are key to saving lives after cardiac arrest.<sup>2-4</sup> In the pre-hospital environment, outcomes are improved from regular cardiopulmonary resuscitation training in small groups, which are spaced over time.5-7 If inhospital resuscitation team members attend accredited cardiopulmonary resuscitation courses, patient survival can be improved.<sup>5,8,9</sup> In summary, good quality cardiopulmonary resuscitation in every environment results in better patient outcomes.<sup>10</sup> The ultimate goal is to achieve early recognition of cardiac arrest, early cardiopulmonary resuscitation and defibrillation, as well as adequate post resuscitation care to restore quality of life.11

In 2003, the International Liaison Committee on Resuscitation (ILCOR) published an advisory statement highlighting for the first time the importance of regular cardiopulmonary resuscitation training for all health care professionals.<sup>12</sup> Since 2010, regional resuscitation councils (including the European Resuscitation Council (ERC) and the American Heart Association (AHA)) have regularly published education chapters in their respective guidelines based on the Consensus on Science and Treatment Recommendation (CoSTR) of the International Liaison Committee on Resuscitation (ILCOR).<sup>8,13,14</sup>

In order to enhance the evidence base to further improve the effectiveness of resuscitation education, Resuscitation Plus welcomes submissions to a Special Edition on Resuscitation Education. Methodologically sound manikin and simulation studies, scoping and systematic reviews, evaluations of educational interventions on teaching, learning, and assessment of resuscitation, and their impact on clinical outcomes are welcome. These studies may include the application of new innovative approaches to teach resuscitation skills to different provider groups and populations. We also welcome studies including the application of non-traditional educational interventions like technology-enhanced learning, virtual reality, use of smart phone apps, hybrid and blended learning strategies. Narrative reviews require pre-approval by the Handling Guest Editor (Assist. Prof. Sabine Nabecker, M.D., PhD). Please direct all enquiries, including questions about appropriate topics, prior to submission via e-mail to the Handling Guest Editor (sabine.nabecker@sinaihealth.ca).

Resuscitation Plus is the only open access journal that focuses entirely on cardiac arrest and cardiopulmonary resuscitation. The journal publishes studies on education in resuscitation for healthcare professionals working in critical care, emergency medicine, acute medicine, anaesthesia, cardiology, paediatrics, neonatology, trauma and simulation. This Special Edition on Resuscitation Education is an excellent opportunity to publish your educational approaches for an international community interested in education. We welcome a discussion of recent developments and findings. As a special offer, accepted manuscripts will receive an article processing fee waiver.

All submissions deemed suitable to be sent for peer review will be reviewed by at least two independent reviewers. Once a manuscript is accepted, it will go into production and will be simultaneously published in the current regular issue and pulled into the online Special Issue, though they will be clearly marked and branded as Special Issue articles. This will assure fast dissemination of published findings.

The Resuscitation Plus's submission system (https://www.editorialmanager.com/resplu/default1.aspx) will be open for submissions to this Special Issue from 01 September 2022 to 01 February 2023. When submitting your manuscript please select the article type "VSI: Resuscitation Education".

#### **Conflict of Interests**

Sabine Nabecker is member of the Instructor-Educator-Support Science and Education Committee (SEC-IES) of the European Resuscitation Council (ERC), and member of the Continuous Education and Professional Development (CEPD) Committee of the Canadian Anesthesiologists' Society (CAS).

Andrew Lockey is President of Resuscitation Council UK and member of the International Liaison Committee on Resuscitation (ILCOR)'s Task Force on Education, Implementation and Team.

Robert Greif is the Board Director of Guideline and ILCOR of the European Resuscitation Council (ERC) and Chair of the International Liaison Committee on Resuscitation (ILCOR)'s Task Force on Education, Implementation and Team.

#### REFERENCES

 Grasner JT, Herlitz J, Tjelmeland IBM, et al. European Resuscitation Council Guidelines 2021: Epidemiology of cardiac arrest in Europe. Resuscitation 2021;161:61–79. <u>https://doi.org/10.1016/j.</u> <u>resuscitation.2021.02.007</u>. Published Online First: 2021/03/29.

- 2 Perkins GD, Graesner JT, Semeraro F, et al. European Resuscitation Council Guidelines 2021: Executive summary. Resuscitation 2021;161:1–60. <u>https://doi.org/10.1016/j.resuscitation.2021.02.003</u>. Published Online First: 2021/03/29.
- 3 Soar J, Berg KM, Andersen LW, et al. Adult Advanced Life Support: 2020 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations. Resuscitation 2020;156:A80–A119. <u>https://doi. org/10.1016/j.resuscitation.2020.09.012</u>. Published Online First: 2020/10/26.
- 4 Olasveengen TM, Semeraro F, Ristagno G, et al. European Resuscitation Council Guidelines 2021: Basic Life Support. Resuscitation 2021;161:98–114. <u>https://doi.org/10.1016/j.</u> <u>resuscitation.2021.02.009</u>. Published Online First: 2021/03/29.
- 5 Greif R, Bhanji F, Bigham BL, et al. Education, Implementation, and Teams; 2020 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations. Resuscitation 2020;156:A188–239. <u>https://doi.org/10.1016/j.resuscitation.2020.09.014</u>.
- 6 Nabecker S, Huwendiek S, Theiler L, et al. The effective group size for teaching cardiopulmonary resuscitation skills – A randomized controlled simulation trial. Resuscitation 2021;165:77–82. <u>https://doi.org/10.1016/j.resuscitation.2021.05.034</u>. Published Online First: 2021/06/10.
- 7 Yeung J, Djarv T, Hsieh MJ, et al. Spaced learning versus massed learning in resuscitation – A systematic review. Resuscitation 2020;156:61–71. <u>https://doi.org/10.1016/j.resuscitation.2020.08.132</u>. Published Online First: 2020/09/15.
- 8 Greif R, Lockey A, Breckwoldt J, et al. European Resuscitation Council Guidelines 2021: Education for resuscitation. Resuscitation 2021;161:388–407. <u>https://doi.org/10.1016/j.</u> resuscitation.2021.02.016. Published Online First: 20210324.
- 9 Lockey A, Lin Y, Cheng A. Impact of adult advanced cardiac life support course participation on patient outcomes—A systematic review and meta-analysis. Resuscitation 2018;129:48–54. <u>https://doi.org/10.1016/j.resuscitation.2018.05.034</u>.
- 10 Wik L, Kramer-Johansen J, Myklebust H, et al. Quality of cardiopulmonary resuscitation during out-of-hospital cardiac arrest. JAMA 2005;293(3):299–304. <u>https://doi.org/10.1001/jama.293.3.299</u>.
- 11 Soreide E, Morrison L, Hillman K, et al. The formula for survival in resuscitation. Resuscitation 2013;84(11):1487–93. <u>https://doi.org/</u> <u>10.1016/j.resuscitation.2013.07.020</u>. Published Online First: 2013/08/ 07.
- 12 Chamberlain DA, Hazinski MF, European Resuscitation C, et al. Education in resuscitation: an ILCOR symposium: Utstein Abbey: Stavanger, Norway: June 22–24, 2001. Circulation 2003;108 (20):2575–94. <u>https://doi.org/10.1161/01.CIR.0000099898.11954.3B</u>.

- 13 Group C-W, Wyckoff MH, Singletary EM, et al. International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations: Summary From the Basic Life Support; Advanced Life Support; Neonatal Life Support; Education, Implementation, and Teams; First Aid Task Forces. Resuscitation 2021;2021. <u>https://doi.org/10.1016/j.</u> <u>resuscitation.2021.10.040</u>. Published Online First: 2021/11/15.
- 14 Cheng A, Magid DJ, Auerbach M, et al. Part 6: Resuscitation Education Science: 2020 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation (New York, NY) 2020;142(16\_Suppl\_2 Suppl 2): S551–79. <u>https://doi.org/10.1161/CIR.000000000000903</u>.

Sabine Nabecker\*

Department of Anesthesiology and Pain Management, Sinai Health System, University of Toronto, Toronto, Canada ERC ResearchNET, UK

\* Corresponding author at: University of Toronto, Department of Anesthesiology and Pain Management, Sinai Health System, Mount Sinai Hospital, 600 University Avenue, Ontario M5G 1X5, Toronto, Canada.

E-mail address: sabine.nabecker@sinaihealth.ca, @sabinenabecker

#### Andrew Lockey

Department of Emergency Medicine, Calderdale and Huddersfield NHS Trust, Halifax, UK

School of Human and Health Sciences, University of Huddersfield, Queensgate, Huddersfield, UK

Robert Greif

ERC ResearchNET, UK

Department of Anaesthesiology and Pain Medicine, Bern University Hospital, University of Bern, Bern, Switzerland School of Medicine, Sigmund Freud University Vienna, Vienna, Austria

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