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IMPLEMENTING DOUBLE SEQUENTIAL DEFIBRILLATION IN ACCORDANCE WITH THE 2023 ILCOR CONSENSUS

Andrzej Krupa[1], Sylwia Zymielko[2], Karol Bielski[3]

[1]Department of Medical Informatics and Telemedicine, Medical University of Warsaw, Poland
[2]Students Research Club, Maria Sklodowska-Curie Medical Academy, Warsaw, Poland
[3]Department of Public Health, International European University, Kyiv, Ukraine

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We enjoyed reading an article authored by Dabkowski et al. [1]. The authors of the paper emphasized the need to incorporate double sequential defibrillation (DSED) into the treatment recommendations, even if there is little data about its efficacy. Significantly, just a short period of time has elapsed between the release of the publication to the emergence of the most recent recommendations, titled "2023 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations" [2]. The 2023 Treatment Recommendations propose that adults experiencing cardiac arrest and still in ventricular fibrillation or pulseless ventricular tachycardia after receiving at least three consecutive shocks may consider using a DSED strategy or a vector change (VC) defibrillation strategy. These recommendations provide the first set of instructions that modify the approach to DSED and enhance its accessibility in prehospital care. Additional study is required to determine the superiority of the DSED technique and VC defibrillation strategy since the present data does not provide enough information to differentiate between each of them. Their clinical approval, however, allows their use and creates opportunities for a broader study of this issue. When using a DSED technique, it is recommended to utilize a method where a single operator activates the defibrillators in sequence — and we must remember this fact when considering the use of DSED so that the introduction of new techniques does not cause delays and problems. Special emphasis should be placed on the restriction stated in the recommendations, which states that the use of dual shocks necessitates the presence of two defibrillators, and this has ramifications for available resources. A potential resolution to this issue might include developing a defibrillator that incorporates the capability to do DSED utilizing a single device, without imposing any additional burden on the team. DSED is now used by a few EMS systems to treat refractory shockable cardiac arrest that is resistant to treatment, making it a feasible option for integration into certain systems. In other systems, this approach may need substantial allocation of new resources for extra defibrillators or ambulances, and such an increase in resource allocation might pose considerable challenges and incur high costs. It is important to note that COVID-19 infection may be linked to ventricular tachycardia or ventricular fibrillation storm, both during the acute and convalescent stages of the infection — so there may be more and more such rhythms for the use of DSED, even as cardiovascular complications of the COVID-19 [3]. We have plenty of evidence on how the pandemic has affected, for example, cardiac arrest or arrhythmias, and we know that this evidence has rather poor prognostic effects for the future [4–8]. Additional investigation into the use of DSED and proper equipment preparation is

CORRESPONDING AUTHOR:
Andrzej Krupa
Department of Medical Informatics and Telemedicine, Medical University of Warsaw, Poland
e-mail: and95rzej5@gmail.com
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essential. With the introduction of new standards, however, there is a strong likelihood of widespread adoption and advancement of this approach.

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