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Automatic external defibrillator: The pros and cons of using this technology for cardiac resuscitation after arrhythmias

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Introduction: It is estimated that, each year, the United States and Europe Account for 250,000 to 450,000 deaths from cardiac arrest, considered the most common - and lethal - of heart diseases. The situation is even more worrying because most arrests occur outside the hospital context. Recently, a new technology has emerged in favor of cardiac resuscitation outside the hospital context: the automatic external defibrillator (AED), a device that is simple and intuitive to use, which can be used by laypeople and which allows a better outcome, especially in shockable arrhythmias (ventricular fibrillation and pulseless ventricular tachycardia). **Objective:** To describe the favorable points and the contrary points that are presented in the literature regarding the use of the Automatic External Defibrillator in cardiac resuscitation after arrhythmias. **Material and Methods:** Observational and descriptive study of the bibliographic review type without meta-analysis, in which 10 articles from the last 10 years were used, without language restrictions, taken from the Scielo, PubMed and Lilacs databases, using the following descriptors: Automated External Defibrillator; External Defibrillator. Results: Basic life support (BLS) is the initial care for out-of-hospital emergency situations and, within the standardization of BLS, in the use of the AED. Despite this, in one of the studies explored it was possible to observe that there are only 6 AEDs for every 100,000 inhabitants. Added to the lack of available AEDs is the little training that is provided to the population, and knowing that the use of AEDs without efficient CPR does not promote favorable outcomes, it is clear that the isolated use of defibrillation is not efficient. Even so, there are situations described in which the AED was used: The institutions in which the defibrillator was most used were long-term care institutions (15.7% of cases). Furthermore, in countries where cardiac resuscitation and the use of AEDs are well taught to the population, it was possible to assess that patient outcomes were more favorable. It is worth noting that, when evaluated, all participants in cross-sectional studies recognized the importance of knowing the correct CPR maneuvers and also the use of the AED. On the other hand, few or none of them sought to train themselves in both. **Conclusion:** It is possible to observe a scenario in which CPR and the use of AEDssave lives, but, unfortunately, there are many obstacles to their use, such as, for example, lack of training among lay people, which results in unsatisfactory outcomes, in addition to the lack of AED in public environments, which results in unsatisfactory outcomes, in addition to the lack of AED in public environments where individuals spend a lot of time.

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