

Letters to the Editor

Soria Cardioprotégida. The First Spanish Program for the Prevention and Integral Treatment of Sudden Cardiac Death**Soria Cardioprotégida. Primer programa español de prevención y tratamiento integral de la muerte súbita cardiaca****To the Editor,**

We read with great interest the article by Loma-Osorio et al.¹ published in *Revista Española de Cardiología*. First of all, we would like to congratulate the originators of the project for the initiative, and the authors of the study for the quality of data provided, which is sure to help improve strategies in prevention and treatment of sudden cardiac arrest in Spain. Nonetheless, we would like to make the following comments on the subject.

Since 2008, the province of Soria (population, 88 093) has been pioneering, thanks to the financial support of a local banking entity and the collaboration of all the public administration departments, the development of the first comprehensive program for the prevention of sudden cardiac death in Spain.² Currently, 105 automated external defibrillators (AEDs) are available, distributed throughout the whole province (1 AED per 840 inhabitants).

Our project—unlike the project in Girona—included from the start a formal training program in cardiopulmonary resuscitation (CPR) techniques and AED use provided to very diverse sectors of the population (eg, health care personnel, members of law enforcement authorities, the armed forces, firefighters, priests, bank employees, hotel concierges, university students). So far, more than 8700 people (9.9% of the population) have received this training.

The “chain of survival” suggested to achieve the highest success rate for CPR includes 2 steps that must not be omitted and must always go hand in hand with the early use of an AED. Good, repeated training is required on these steps: a) early identification of an unconscious person or person with symptoms of myocardial ischemia to ensure rapid contact with the emergency medical services, and b) immediate initiation of basic CPR. Every minute delay to defibrillation reduces the probability of survival to discharge by 10% to 12%; however, when CPR is performed, this reduction in survival is less severe (3%–4% for every minute delay).³ In fact, it has been demonstrated that early CPR significantly increases survival following out-of-hospital cardiac arrest even though the CPR may lead to a delay in defibrillation.⁴ In addition, within the public defibrillation programs, the greatest impact on survival after out-of-hospital cardiac arrest comes from increasing the number of people trained in basic CPR techniques, whereas less of an impact comes from the density of available AEDs.⁵

Given all these points, we believe that formal CPR training is absolutely essential in any planning of a public defibrillation program. In the case of Girona,¹ they describe that specific courses were only given in highschools to more than 4000 students, but CPR training was not given to the general population. In this regard, given that the most common cause of sudden cardiac arrest remains ischemic heart disease and that its incidence is concentrated in middle-aged and older patients, it appears that

focusing CPR training efforts exclusively in the school population—although also essential—is not enough.

Last, we cannot let the opportunity pass to publicly appeal for this country to implement as soon as possible the national *Kids save lives* program, which involves all schoolchildren from age 12 receiving annual 1-hour courses in CPR technique, in which they also encourage the children to help teach other people. It has been estimated that this program could increase 2–4 fold the survival rate after out-of-hospital cardiac arrest and save close to 1000 lives per day worldwide.⁶

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