Abstract: **P2529**

Impact of automated external defibrillator background in amateur sportive centres: 18 years experience

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Background: Sudden cardiac arrest (SCA) is a rare but tragic event during amateur sport, as survival following exercise-related SCA is poor.

Purpose: We aim to analyse the impact of automated external defibrillator (AED) purchase by amateur sportive centres.

Methods: To improve early defibrillation in SCA, we established Piacenza Progetto Vita (PPV) in the Piacenza region of Italy. As part of this project, we encouraged and facilitated AED purchase by amateur sportive centres. During a 18 years period, exercise-related SCA SCA data in sportive centres of the region were prospectively collected. Resuscitation and survival rates as well response time were compared on the base of AED accessibility.

Results: 137 (38%) amateur sportive centres acquired an AED whereas 223 (62%) did not. During the study period 26 SCA occurs [24 (92%) men, 54+17 yo], 15 (58%) of them in centres with AED background. Onsite AED use reduced the time to first shock from 7.3+3.2 to 3.3+1.4 minute ($p=0.001$). Neurologically intact survival was 92.8% for patients treated with an onsite AED compared with 9% without an AED ($p<0.001$). As mean, it was needed to acquire 26.6 AED to prevent one death/neurological adverse outcome.

Conclusions: Onsite AED programs provide an excelent neurologically intact survival rate for exercise-related SCA. In view of these results, we hardly recommend continuous efforts to introduce or extend AED programs in amateur sportive centres.