

Survival after an out-of-hospital cardiac arrest decrease over time in all Utstein categories. The importance of a long follow-up

E. Baldi¹, S. Buratti¹, E. Contri², S. Canevari³, S. Molinari², M. Pagani⁴, B. Lusona⁴, F. Mojoli⁴, R. Bertona⁵, R. Osti⁶, A. Palo², L. Oltrona Visconti⁷, G.M. De Ferrari¹, S. Savastano⁷

¹Foundation IRCCS Policlinic San Matteo - University of Pavia, Pavia, Italy; ²Foundation IRCCS Policlinic San Matteo, AAT 118, Pavia, Italy; ³Azienda Regionale Emergenza Urgenza (AREU), SOREU Pianura, Milano, Italy; ⁴Foundation IRCCS Policlinic San Matteo, Intensive Care Unit, Pavia, Italy; ⁵Azienda Ospedaliera della Provincia di Pavia, Division of Cardiology, Vigevano, Italy; ⁶Azienda Ospedaliera della Provincia di Pavia, Division of Cardiology, Voghera, Italy; ⁷Foundation IRCCS Policlinic San Matteo, Division of Cardiology, Pavia, Italy

Background: Survival beyond 1-month after an out-of-hospital cardiac arrest (OHCA) is still considered a challenge for OHCA registries and it is often unexplored. However, a longer follow-up could help to better comprehend the long-term issues of OHCA survivors.

Purpose: Our aim was to evaluate the long-term outcome after OHCA via an Utstein-based cardiac arrest registry with a long follow-up (up to 5 years).

Methods: We enrolled all the people with an OHCA of any aetiology in our Province (about 550000 inhabitants in northern Italy) in whom CPR was attempted. The primary endpoint was the survival at 1 month, and the secondary endpoints were the survival at 6 months and then every year until 5 years after OHCA.

Results: In the first 45 months (October 2014–June 2018) 1774 resuscitation attempts for confirmed OHCA were enrolled. Baseline characteristics:

male 59.7%; mean age of 73.4±16 years; mean EMS response time was 11:31±5:09 mins; home location 78.8%; bystander-witnessed events were 56.1%; EMS witnessed event 15.6%; bystander CPR 39.5%; AED use before EMS arrival 2.5%; medical etiology 93%; first shockable rhythm 18.2% (90.7% VF, 2.5% VT without pulse, 6.8% AED shockable). When considering survival from the event (Figure 1 – left panel), survival was significantly higher for shockable Utstein categories ($p<0.001$). Considering only those patients discharged alive (Figure 1 – right panel) long term survival was significantly higher ($p<0.01$) once again for shockable rhythms. Interestingly, in this category survival continued to decrease over time ranging about from 90% in the first year to about 80% at four years.

Conclusions: Our results demonstrated that survival after OHCA can change over the time in all the Utstein categories, so we believe that a longer follow-up should be encouraged by next Utstein style revision.

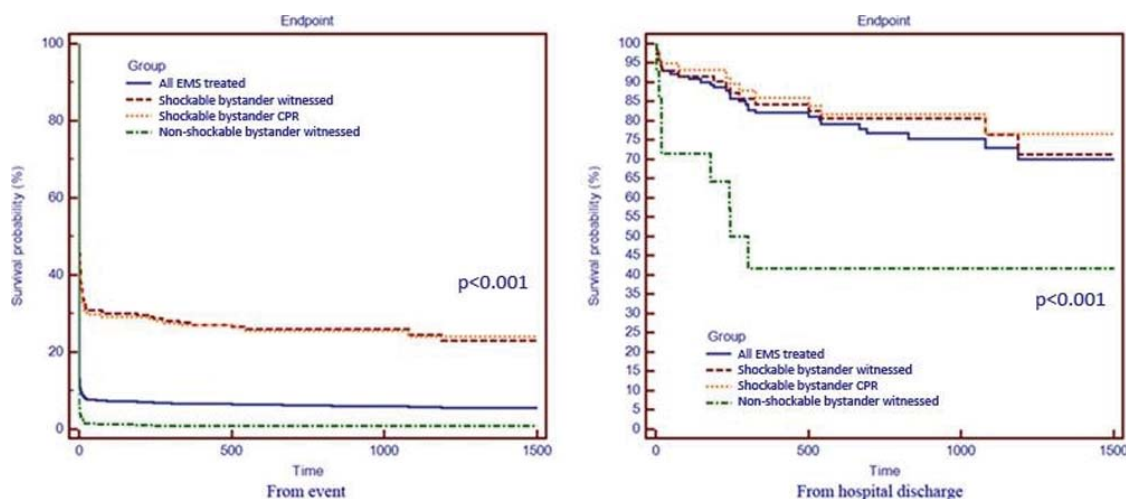


Figure 1