A Special Commentary
By Dr Arthur L. Kellermann, MD, MPH, FACEP

Out-of-hospital cardiac arrest (OHCA) is a leading cause of death worldwide, particularly in middle and high-income countries. As the populations of many nations in Europe, North America, and parts of Asia age, it will likely grow in importance. Recent research on OHCA has affirmed three important observations that have important implications for successful treatment: 1) OHCA victims who are witnessed to collapse and are found in ventricular fibrillation or ventricular tachycardia are far more likely to survive than those who are not; 2) rapid initiation of bystander cardiopulmonary resuscitation (CPR) doubles or triples a victim’s odds of surviving, as does early use of an automated external defibrillator and 3) by far the strongest predictor of who will live and who will die following OHCA return of spontaneous circulation (ROSC) in the field. When a pulse is restored on scene, the victim is 35 times more likely to survive to hospital discharge than if he or she patient is transported in full cardiac arrest. This last observation is the most important one. It means that the battle to save victims of OHCA is won or lost with pre-hospital care. Hospital-based care, no matter how sophisticated, cannot compensate for a failed pre-hospital resuscitation (Ann Emerg Med. 2010 Mar 4).

Despite the importance of pre-hospital cardiac care, some communities do much better than others (JAMA 2009;301(8):860-2). Published rates of survival in the U.S. range from zero to 46% (JAMA 2009;301(8):860-2). Undoubtedly, similar disparities exist worldwide. But it is difficult to motivate EMS professionals, physicians and bystanders to try harder if they don’t know how well they are doing.

That’s why the PAROS initiative is so important. By coming together and agreeing to collect data in a simple and consistent way, you are creating a powerful tool for improving the pre-hospital treatment of OHCA. And because successful treatment requires every element of an EMS system to function at a high level, OHCA is a valuable “sentinel condition” for improving EMS care across the board.

At the International Conference of Emergency Medicine (ICEM 2010) meeting in Singapore, I saw Asia and Australia’s leading emergency physicians come together to create PAROS and brainstorm ideas about how to improve emergency care for tens of millions of people. By joining forces with each other, you are creating a powerful team that will not only improve emergency care in your respective communities and countries; but worldwide.

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