



Cardiac Arrest Steering Committee Meeting Minutes

Meeting started at 1408 hrs.

Attendees:

Jennifer Anders	Alicia Mezu
Tim Chizmar	Beth Phillipson
Kelly Derthick	Luis Pinet-Peralta
Bill Dousa	Kevin Seaman (Chair)
Linda Dousa	Roger Stone
Melanie Gertner	Nisha Strobos
Katie Hall	Cyndy Wright-Johnson

1. Introductions
2. Discussion started to revise the steering committee’s vision and mission: to improve Cardiac Arrest (CA) survival. CA is a sensitive emergency, time-dependent, occur at home, low bystander CPR rates, limited pre-arrival instructions nationwide, need for more QI.
 - a. Small number of systems measure performance for improvement purposes.
 - b. What are we doing in the community, through EMS and through hospitals (e.g., ED, CIC, ICU)
 - c. Need clarity on what a survivor is, need to define this.
 - i. Ideally, return to neuro baseline; the system should maximize that. In pediatric patients, neurological impairment may be preferable than death. We need to consider different perspectives (patients, families, clinicians, etc.) **Quality of life has a range of preferences.**
 1. From the EMS perspective, ROSC is a good metric.
 2. What is the stopping point during care? Discharge, arrival at hospital, etc.?
 3. Must strive for optimal functional outcomes/recovery. To get to this point we must meet several benchmarks. How can we build the definition that includes the pediatric perspective? Where do we define “success”? When are we successful? Field resuscitation is essential.
 - a. **Optimization for improvement in every stage of care. Field resuscitation is essential.**
 4. Defibrillation is essential. People on the road need to have the tools to start resuscitation right away. Access to AED and early compressions are

essential. This must be a package or a bundle of care (see Attachment A: *Pepe PE, et al. Bundle of Management for OHCA. 2020*)

5. We are seeing more cardiac arrests that are non-cardiac (e.g., respiratory), so compressions are essential. What are our priorities and how can we measure them? Can we identify best practices for training community CPR? Simple is better (for both CPR and AED). Pediatric CPR is particular: clinicians may be more apprehensive with pediatric cardiac arrest. We must pay attention to numerators and denominators as part of our work defining and measuring.
 - a. Should we use the IHI improvement model? Small, incremental steps?
 - b. Which pilot interventions can we consider for implementation?
 - c. What resources/assets needed to have a QI model in place? How to adjust for geography, volume, deployment model, etc.? What challenges should we be aware of when implementing these interventions in different environments? What other factors can we identify from dispatch centers that we can tackle?
 - d. Roadmap from community dispatch centers on how to get this done.

3. Areas:

- a. Community
 - b. 911 center - Carlie Brown is the lead.
 - c. EMS – Steve Adelsburger is the lead.
- Consider piloting two projects: 1) Community CPR, and 2) Dispatch center. See editorial sent by Nisha Chandra (Attachment B).
 - The group discussed tasking subcommittees with coming up with these pilots instead. We will find the chairs for the subcommittees mentioned above and follow up.

Meeting ended at 1530 hrs.

Attachment A:



Pepe PE, et
al_Bundle of Manag

Attachment B:

Improving Out-of-Hospital Cardiac Arrest Survival Rates—Optimization Given Constraints
[Kevin G. Volpp, MD, PhD¹](#); [Benjamin S. Abella, MD, MPhil²](#). *JAMA Cardiol.* 2023;8(1):8-9.
doi:10.1001/jamacardio.2022.4392

[The key features and recommendations of this editorial are abstracted below.]

Given the very low survival rate from OHCA in the US, what can be done to make more rapid progress? A concerted national effort to improve these dismal statistics could consist of the following 5 measures:

- 1. National funding for the Cardiac Arrest Registry to Enhance Survival with reimbursement for ambulance services tied to participation in this quality improvement initiative: currently, only about half of the US is part of this registry so data are limited on OHCA burden in many US locations.*
- 2. A 10- to 100-fold increase in the availability of AEDs: municipalities should consider ordinances that retail stores and restaurants above a certain size have at least 1 AED. For a restaurant that serves 100 people a day, an \$1800 AED that lasts 5 years would cost less than 1 cent per customer.*
- 3. More training in bystander CPR: while 40 states and the District of Columbia now require CPR training before high school graduation,⁶ the low rates of bystander CPR in the US in OHCA suggest that a 1-time training in high school is far from sufficient. Some organizations make routine training updates in CPR available to their employees and this could be more widely encouraged.*
- 4. Improved training of all 911 dispatchers in telephone-assisted CPR (T-CPR): training several dozen dispatchers within a city with millions of residents would be far more efficient than training enough citizens such that a person experiencing OHCA would be likely to receive CPR. Data suggest that T-CPR training has been effective at increasing OHCA survival rates. For example, in Arizona, T-CPR provision was associated with a significant increase in survival (odds ratio, 1.56; 95% CI, 1.06-2.31).²*
- 5. National investments in a connected infrastructure for emergency response for cardiac arrests: AEDs in public places and in residential areas that are accessible should be connected to a system that uses Bluetooth connectivity or Wi-Fi so that potential responders know where the nearest AED is in any location.*

In addition, a concerted national effort to fund research on the most effective and efficient ways to improve the effectiveness of T-CPR, the uptake and effectiveness of bystander CPR, and the effectiveness of AED placement and access could produce great dividends.