

# Cardiac care



**ASSIGN  
BUSTER**

Review of the EMS article, the Cutting Edge Cardiac Care The medical article, Cutting Edge Cardiac Care issued by EMS World in February tackles the improvement of the pre-hospital cardiac care with the help of advance technology and innovation particularly with the ARCTIC Program. EMS stands for Emergency Medical Services while EMS World is an online publication that provides EMS news and training for paramedics.

The Advanced Resuscitation Cooling Therapeutics and Intensive Care or ARCTIC is the most comprehensive program of its kind in the United States. According to the article, ARCTIC has two goals and these are: 1) to restart the heart as quickly as possible, and to start cooling as early as possible, and 2) transport patients to a single-specialized post-resuscitation facility in hopes of preserving their brains.

It was known typically that in EMS system, cooling begins after return of spontaneous circulation or ROSC. However, it was recently discovered that patients are cooled as resuscitation attempts occur, and receive a broad complement of additional therapies and support both pre-hospitalization and in hospital as studied by Virginia Commonwealth University (VCU) Medical Center.

Chairman of VCU's Department of Emergency Medicine and medical director of the Richmond Ambulance Authority, Joseph Oranto, MD, had explained the motivation with such approach. He said "" Our approach was to do something a bit different." He had explained the need for early cooling as part of EMS based on his conducted study. He had stated, " The basis is animal data that pretty consistently suggests that the earlier you initiate cooling, particularly during the resuscitation process, the more likely you are to get a good neurologic outcome."

<https://assignbuster.com/cardiac-care/>

Ornate pointed out even though the early studies to prove that the spontaneous circulation had improved the chance of survival had been failed, he is taking chances with the EMS approach of cooling early will be absolutely proven to be beneficial for the patients. As the time the article was written, they are still at the early stage of application of cooling early after ROSC.

In the ARCTIC Program, there are some advance and improved approach for EMS that are enlisted. Some of the notable ones are the following:

- 1) Good quality CPR that includes automated chest compressions and interposed ventilations. This is being performed for 2 to 3 minutes before the rhythm is determined and should not be stopped during defibrillation.
- 2) Simplified Airway Management. This is the passing of the ET tube but if the Medics are not certain to locate, they use the King airway.
- 3) Cooling is achieved with 4°C saline when drugs had restarted the heart. This is a treatment in which vasopressin and epinephrine are being alternately used. Drugs are given IO whenever IV is not able to achieve in its initial pass.

During the American Heart Associations 2009 Scientific Sessions' " Early Markers of Rescuers Fatigue," had issued the findings that fatigue to the medic will affect the quality CPR. In such case, they used PocketCPR and found out that it is more accurate marker of fatigue. It was also disclosed that rescuers should change every two minutes in performing CPR for physiological reason.

The article had concluded that it is important to reconsider the guidelines that are being taught, trained and performed because most of it was unable to be applied in actual procedure. Research says that 25% could only follow

<https://assignbuster.com/cardiac-care/>

the guidelines. Ultimately, it is debriefing and feedback that must be considered to be part of a quality management/improvement program if effectiveness is desired as these measures and evaluate all aspects of resuscitation.