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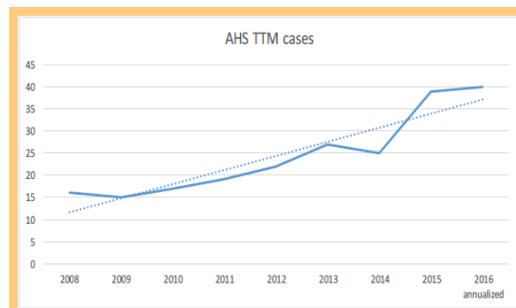
Title: Frozen? Thawing the evidence on Targeted Temperature Management: A multi-center system approach

Background: Sudden cardiac arrest (SCA) occurs in approximately 350,000 people annually with 70% occurring at home (American Heart Association, 2017). With only 46% of people receiving bystander cardiopulmonary resuscitation and only eight percent of people surviving their arrest to make it to the hospital—a significant number of survivors have neurologic deficits post arrest. Consequently, Targeted Temperature Management (TTM) has been recommended since 2003 for survivors to improve chances for a full neurologic recovery.

Action: TTM therapy for post-SCA patients was instituted at two facilities in 2008. Noting a trend in evidence-based practice changes and a need for an integrative, informed care team, the system formed a nurse-driven TTM Steering Committee that extended across both sites in 2010. The committee meets monthly to review literature, protocols, patient cases, and quality-improvement initiatives and is comprised of bedside RNs, clinical leadership, MDs, paramedics, managers, pharmacists and a data collector. In 2012, the committee embarked on a research study investigating the impact of fever on patient outcomes for patients who received TTM. In 2014, the committee expanded to include two additional hospitals that joined the system.

In 2015 the Institute of Medicine and the American Heart Association issued recommendations that incorporated pre-hospital care through rehabilitation while focusing on the development of programs to strengthen SCA survival rates with emphasis on post-resuscitative care such as TTM (Callaway, 2015). The TTM Steering Committee reviewed the recommendations as well as all available evidence and began to adapt the program to be more inclusive of the focus on pre-hospital ACLS and broadened the inclusion criteria to allow for varying target temperatures based on clinical presentation. Quality improvement data collection was modified to focus on the impact these changes made on the overall programmatic outcomes. Additional education, clinical support and resources to streamline patient care were provided to the clinicians at the bedside. An immediate increase in patient evaluations with enhanced communication between units, and hospital sites was noted.

Outcomes: Since 2008, there have been approximately 260 SCA cases who received TTM within the four facilities with a 37% survival rate. Of the survivors, 84% were discharged with minimal need for cognitive/physical rehabilitation or were returned to their pre-arrest baseline function. Additionally, the outcome of the fever research has led to the institution of an aggressive fever protocol which has resulted in a reduction in cost/time spent investigating fevers. Since 2014, the efforts of the committee have shown a 35% increased use of therapy.



References:

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