Title:
Improving Neurological Outcomes in Post Cardiac Arrest Adults Using Therapeutic Hypothermia

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Abstract Summary:
Cardiac arrest remains one of the most unexpected, dramatic, & life-threatening events in medicine with about 356,500 people experiencing out-of-hospital cardiac arrest in the United States during 2014 (American Heart Association, 2015). Cardiac arrest leads to loss of circulation, causing a decrease in
cerebral oxygen and therefore brain cell death, leading to the most common cause of death after a cardiac arrest. Those who survive often have poor neurological outcomes, resulting in the patient to suffer a lifetime of cognitive impairment and immobility. Over the past 10 years, researchers have found that hypothermia can decrease cerebral oxygen demand and block chemical cascade responsible for cerebral injury. This has led to the American Heart Association to add therapeutic hypothermia to its cardiopulmonary resuscitation guidelines. The goal of the therapeutic hypothermia guideline is to improve survival and neurologic function in post-cardiac arrest patients following return of spontaneous circulation. The purpose of this literature review is to determine whether or not therapeutic hypothermia treatment has neurological benefits in post-cardiac arrest patients with shockable and non-shockable rhythms. As research supports therapeutic hypothermia treatment in patients of shockable rhythms, it is unclear whether therapeutic hypothermia is effective in decreasing neurological damage in patients of non-shockable rhythms. To support the American Heart Association therapeutic hypothermia guideline, further research is necessary to understand the neurological benefits in patients of non-shockable rhythms. As cardiac arrest is the most leading cause of death in the United States, nurses must be competent in the implementation of therapeutic hypothermia. During therapeutic hypothermia treatment, nurses are responsible for preventing, identifying and treating adverse effects and complications in a timely matter. Education and training is essential in ensuring that competent nurses and medical staff initiate therapeutic hypothermia promptly and safely. Furthermore, nurses play a crucial role in providing family support and education during this overwhelming experience.