Therapeutic Hypothermia Post Cardiac Arrest: Evidence into Clinical Practice
Edward Maurice Lopez, BSN, RN
Midland Memorial Hospital
Raceli Gibson

Problem: The disruption of circulation from cardiac arrest causes multiple organ ischemia and results in catastrophic affects on neurological processes. The patient that returns to spontaneous circulation (ROSC) has a higher mortality rate.

Evidence: International Liaison Committee on Resuscitation (ILCOR) and American Heart Association (AHA) recommended in December 2005 and reconfirmed in October 2008 the use of Therapeutic Hypothermia (TH) for cardiac arrest victims. The class II and level b evidence by ILCOR and AHA recommend TH for comatose patients post cardiac arrest with ROSC. TH has proven to be affective in decreasing neurological consequences and mortality rates. Medline, CINAHL, and Cochrane databases were searched for best practices in TH in cardiac arrest victims.

Strategy: Develop an evidence-based nurse driven TH protocol for cardiac arrest patients in a county hospital. The Intensive Care and Emergency Care services clinical nurse educators, aided by an interdisciplinary team of key stakeholders, were responsible for the implementation.

Practice Change: The adoption of the TH protocol for comatose cardiac arrest patients with ROSC. The protocol’s specific guidelines guide the primary nurse and physician during the initiation of TH therapy.

Evaluation: The following data was collected on patients who received TH therapy: time of cardiac arrest, initial cardiac rhythm at time of arrest, length of time to ROSC, and time from protocol initiation to goal temperature of 32oC.

Results: Since October 2008, TH protocol has been implemented on 10 cardiac arrest patients. 40% of the patients experience positive outcomes, with no notable neurological deficits. 10% experienced mild neurological deficits, yet were discharged to an acute rehab center. 50% had negative outcomes with severe neurological deficits or death.

Recommendations: TH Protocol for cardiac arrest victims should be initiated and patient outcomes evaluated. Constant modification of the protocol based on updated evidence and current best practices to improve patient outcomes and care.

Bibliography:


