Hypothermia after Cardiac Arrest: Implementing an Evidence-Based Protocol
Cynthia Pinard, BSN, RN
USAF – Wilford Hall Medical Center, Lackland AFB
Rowena Faner, Jennifer Soper

PROBLEM
Each year, many deaths occur in the US from out-of-hospital cardiac arrest. Of those that
survive, a high percentage will later die or sustain severe neurological deficits; therefore,
improvements in mortality and neurologic outcomes are needed. Therapeutic hypothermia (TH)
is an evidence-based practice proven to have a positive neurological impact after sudden cardiac
arrest. A hypothermia protocol should be utilized in the practice setting to improve patient
outcomes.

EVIDENCE
In 2002, two landmark studies showed that TH improved mortality and neurological outcomes in
adult patients who had an out-of-hospital cardiac arrest from ventricular fibrillation or pulseless
ventricular tachycardia. As a result of the evidence, the AHA and ILCOR recommended the use
of TH in these patients (IIa recommendation) as well as other cardiac arrest rhythms and in-
hospital patients (IIb recommendation).

STRATEGY
To adhere to the AHA & ILCOR recommended guidelines, in January 2009, Wilford Hall
Medical Center (WHMC) formed a multidisciplinary team to review the literature and create
an evidence-based protocol to be utilized in their ICU and ED.

PRACTICE CHANGE
Prior to implementation, staff was educated on the protocol and Alsius Thermagard by a sales
representative and Nurse Educator via PowerPoint presentations, bulletin boards, and hands on
training. Recruiting champions, providing evidence, continuous education and training helped
influence acceptance of change.

EVALUATION
The following data are collected on patients who receive the hypothermia protocol: date, time,
age, sex, heart rhythm, time before ROSC, number of hours on therapy, and patient outcome.
The data is reported to the South Texas Regional Advisory Council.

RESULTS
WHMC was first in Department of Defense and first in San Antonio, Texas to implement
therapeutic hypothermia! Since January 2009, nine patients received TH with two patients
discharged home and one discharged to LTAC.

RECOMMENDATIONS
Therapeutic hypothermia is a necessary post-resuscitative treatment that should be a standard
treatment strategy to preserve neurological status.
LESSONS LEARNED
ED and ICU need to have better collaboration.

BIBLIOGRAPHY


