

**The Big Chill-Induced Hypothermia**  
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**Problem:** Only two percent of out-of hospital cardiac arrest survivors are discharged from the hospital to home or an acute rehabilitation facility. Contrast this with an eighteen percent improvement in neurological outcome when Induced Hypothermia treatment is provided. In spite of the evidence only twenty percent of the hospitals nation-wide have implemented Induced Hypothermia programs. (Merchant, 2006). As a result, a medium-size community hospital met the challenge and implemented induced hypothermia treatment for the purpose of improving neurologic outcome following out-of-hospital cardiac arrest.

**Evidence:** The American Heart Association (AHA) revised their post-resuscitation guidelines in 2005 to include Induced Hypothermia as a type IIa recommendation. This recommendation reflects empirical evidence that Induced hypothermia treatment saves lives and improves neurologic outcomes by eighteen percent (Bernard, 2002; European trial, 2002).

**Strategy:** Develop and implement a practice change--Induced Hypothermia protocol--based upon empirical evidence and best-practice models.

**Practice Change:** Practice changes included: Inclusion and exclusion criteria for all out-of-hospital cardiac arrest survivors; treatment protocol both emergent and inpatient critical care settings; clinical outcome measures; education and training of specific registered nurses, emergency physicians, and physician intensivists; medical staff credentialing; and consultant role for advanced practice nurses.

**Evaluation:** Concurrent, clinical evaluation is completed on all treated cases. In addition, debriefing sessions to evaluate the process involves review of potential and treated cases by expert clinicians within seventy-two hours of conclusion of the induced hypothermia treatment.

**Results:** Sample size: 4 cases. Clinical outcomes: 50% of treated cases discharged to home or acute rehabilitation; 0% DVT, 0% aspiration pneumonia, 0% pressure ulcer development, 25% shivering after treatment.

**Recommendations:** Revise protocol to include inpatient post cardiac arrest survivors and broaden inclusion criteria to include AHA Type IIa and IIb recommendations.

## Bibliography

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