

Title:

A Case Study of Therapeutic Hypothermia in a Rural Midwestern Hospital

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References:

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Abstract Summary:

A case study that was conducted in a hospital that struggled with their therapeutic hypothermia protocol. This case study implemented education and process improvements which resulted in increased utilization and constituency of the protocol. The hospital did see an increased utilization of the TH protocol by 62.5%.

Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
The learner will be able to apply quality improvement principles to successfully	The use of Six Sigma to implement a protocol.

implement a protocol within the hospital environment.	
The learner will understand how to assemble an inter-professional team to create a culture that guides change in an organization.	The process of developing an inter-professional team.

Abstract Text:

One complication of post-cardiac arrest that is not frequently discussed is the concomitant neurological injury that may occur. Patients who suffer cardiac arrest experience mildly to severely decreased perfusion to the brain and peripheral organs. Lack of oxygen to the brain in an individual with cardiac arrest is termed ‘anoxic brain’. A lack of oxygen to the brain produces a cascade of other complications affecting the brain and subsequent neurological outcomes. To prevent neurological impairment, in cardiac arrest victims, there has been a resurgence of a procedure called therapeutic hypothermia (TH). The purpose of TH is to prevent the potential for anoxia and serious neurological consequences by cooling the body’s core temperature after cardiac arrest with return of spontaneous circulation (ROSC).

This case study was conducted in a hospital that struggled with their therapeutic hypothermia protocol. The purpose of this case study was to explore the implementation of an evidenced-based TH protocol in a Midwestern hospital that frequently serves incoming patients from rural and remote areas. This case study implemented education and process improvements which resulted in increased utilization and constituency of the protocol. As part of this project, provider education involving the ED, intensive care unit (ICU), respiratory therapy and cardiac catheterization staff was initially undertaken to promote increased utilization. In addition to the initial results for the implementation of a TH practice, a plan for provider training, the steps needed to generate buy-in for application of the TH procedure by ED and other hospital providers will be outlined as part of the case study. This case study’s iterative process of implementation in the ED base on continuous quality improvement through utilization of *Lewin’s Change Model and Six Sigma Model* and the initial patient health outcomes for the project based on preliminary (8 months) data collection. After the intervention of education and training, the hospital did see an increased utilization of the TH protocol by 62.5%. After this case study the TH protocol has been utilized consistently throughout the organization. It would be beneficial to replicate this case study with a larger sample size.