THE EFFECTS OF FORCED AIR WARMING IN PREVENTING POST-OPERATIVE HYPOTHERMIA

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Introduction
Hypothermia has many consequences and is a problem frequently encountered in surgical patients. A new recommendation by the Surgical Care Improvement Project for preventing Surgical Site infections is maintaining normothermia in all post-operative patients. According to the American Society for Peri-Anesthesia Nurses (2009) hypothermia is defined as a core temperature less than 36°C (96.8°F). Temperature data collected in 2010, on 100 post-operative patients showed that 51% were hypothermic.

Purpose
This clinical trial is to assess the effectiveness of thirty minutes of pre-operative forced air warming in preventing post-operative hypothermia in the Colo-Rectal, Gyn Oncology, Prostate and Orthopedic patient populations. The literature review indicates that patients who are actively warmed pre-operatively will have a decreased incidence of hypothermia post-operatively.

Method
After SPH Institutional Review Board approval and authorization from the attending surgeons the study was initiated. Participants were identified from the operating room schedule the day before their surgery and were randomly selected to participate. They were contacted the day of surgery by the Research Assistant who described the study, identified the nature of their participation, and discussed any risks or benefits. Patients’ who agreed to the study, signed written consents. Participants with pre-op temperatures less than 38 °C (100.4° F), were given a Forced Air Warming gown and warmed for approximately 30 minutes. A standard intra-operative warming protocol was used by the Anesthesia provider. At the end of the surgical procedure, the patient was transported to the PACU and a temperature was obtained within 15 minutes of arrival. If the temperature was less than 36° C (96.8° F), the Forced Air Warming gown was utilized for re-warming, and another temperature was taken in 15 minutes.

Results
In July 2010, the study was initiated. Of the fifty patients studied, nine or 18% were hypothermic. This is a reduction of 33% hypothermic patients in PACU.

Conclusion
The findings of this study will be shared with Surgical Services. The suggestion is for a standard to be developed for pre-operative warming of patients undergoing greater than two hours of surgery.

Bibliography
