

## **Preventing Perioperative Hypothermia**

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**Introduction:** Perioperative hypothermia is defined as a core body temperature below 36.0 degrees Celsius or 96.8 degrees Fahrenheit occurring in the perioperative phase and observed in 90% of patients undergoing surgery (AORN, 2022; Bindu, et al., 2017). Core body temperature is often inaccurately monitored, and prevention interventions are inconsistently implemented (Bindu, et al., 2017). Complications from perioperative hypothermia include cardiac events, impaired wound healing, surgical site infections, patient discomfort, and extended recovery time.

**Identification of the problem:** Chart reviews of 30 patients post breast/plastics, colorectal or hysterectomy surgery at a midwestern suburban hospital between August 2021 – November 2021 revealed perioperative hypothermia in 90% of cases. A review of colorectal and hysterectomy surgical site infections between 2020-2021 revealed 70% of those patients experienced perioperative hypothermia.

**Purpose of the Study:** The purpose of this study was to evaluate a standardized perioperative hypothermia prevention protocol in patients undergoing colorectal, breast/plastics, or hysterectomy surgery.

**Methodology:** A quasi-experimental design with a convenience sample of 30 patients was utilized. Data collected included perioperative core body temperatures, total hypothermia time, phase I recovery time, and incidence of surgical site infection. Data collected from January 2022 – May 2022 were analyzed using SPSS 28.0 and descriptive statistics.

**Results:** The percent of patients maintaining normothermia increased from 10% to 87%. One superficial surgical site infection was observed post-operatively within 30 days of surgery. In the four patients who experienced perioperative hypothermia, the average hypothermia time decreased from 117 minutes to 37 minutes. The average post anesthesia care unit (PACU) recovery time for colorectal patients decreased from 92.4 to 66.7 minutes.

**Discussion:** The results of this study indicate that implementing a standardized perioperative hypothermia prevention protocol decreases the incidence of perioperative hypothermia.

**Conclusion:** The hypothermia prevention protocol was effective in preventing perioperative hypothermia in patients undergoing colorectal, breast/plastic or hysterectomy surgery. Implementing a hypothermia prevention protocol may decrease surgical site infections, impact patient experience, and decrease healthcare costs.

**Implications for perianesthesia nurses and future research:** Perianesthesia nurses can improve patient outcomes by implementing interventions to decrease the incidence of perioperative hypothermia. Providing active warming measures preoperatively and in the PACU may also decrease total recovery time. Future research includes implementing the perioperative hypothermia prevention protocol in other surgical specialty populations.