

PREPROCEDURE WARMING TO PREVENT INTRAOPERATIVE HYPOTHERMIA

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Introduction: The prevention of perioperative hypothermia is recognized as an important initiative in the prevention of postoperative complications such as bleeding, wound infection, and prolonged recovery from anesthetics. Preprocedure warming of the patient is an intervention that can be utilized to prevent intraoperative hypothermia.

Identification of the problem: Prewarming requires intervention by the preoperative nurse to ensure application of the warming device for a minimum of 30 minutes in order to prevent hypothermia (core temperature < 36° C). Barriers to prewarming include cost, convenience, and patient compliance.

Purpose of the Study: The purpose of this research project was to study the impact of preprocedure warming in the high risk population of surgical spine fusion patients.

Methodology: The researcher utilized a retrospective chart review to compare 102 spine fusion patients who received preprocedure warming with 733 spine fusion patients who did not receive preprocedure warming.

Results: Chi-Square tests did not support a significant correlation between the categorical variables of prewarmed and admission to OR hypothermia ($p > .05$). Results, however, did support a notable relationship between the variables of cold time minutes (time in minutes the patient's intraop temp was < 36° C) and the mean values for PACU temp, maximum, and last intraop temp. There was an inverse relationship between the variable cold time minutes and the mean for the variable minimum temp.

Discussion: In this study, 63% of prewarmed patients remained normothermic compared to 48% who were not prewarmed. Also, if the patient had fewer cold time minutes, they were essentially warmer over the duration of their procedure.

Conclusion: This study contributed to the body of knowledge regarding the need for preprocedure warming of patients to prevent perioperative hypothermia and its serious consequences.

Implications for perianesthesia nurses and future research: Keeping surgical patients warm should be a major driver of practice change in the perioperative arena due to the numerous complications that can occur as a consequence of hypothermia. Further research on the benefits of preprocedure warming in all types of surgical cases is warranted.