Background

• Patient temperature is an identified factor that is modifiable that affects the patient’s risk for surgical site infection.
• Perioperative hypothermia happens to an average of 54.7% of surgical patients (Yan et al., 2023).
• Current practice involves using forced-air gown to pre-warm the patient in the preoperative and intraoperative space.

Design Description

• The project will determine the effectiveness of thermoreflective caps in maintaining normothermia throughout the surgical stay.
• The sample for the study will focus on Colorectal, Hysterectomy, Total Hip Arthroplasty, Total Knee Arthroplasty and Coronary Artery Bypass Graft surgeries.
• Data collection will focus on patient temperature upon arrival in the preoperative department, prior to OR suite transfer and arrival in the recovery room.

Methodology

• The study is retrospective
• Chart review is completed with focus on temperature reading in preoperative, intraoperative and recovery phases.
• Trends on normothermia maintenance during the entire phase of care was investigated.

Results

• Baseline audit was performed prior to the start of the study to determine gaps in practice.
• Total Arthroplasty cases and Colorectal specialties have the highest non-compliance in temperature maintenance in the Operating Room.

Conclusions

• Average preoperative temperature is 36.3 Celsius (97.3 Fahrenheit).
• Pre-warming the patient in the pre-operative space increases the temperature by 0.3 Celsius (0.6 Fahrenheit).
• With thermoreflective caps, surgery patients only drop 0.04 Celsius (0.08 Fahrenheit)
• Limitations of the study only focuses on select colorectal, hysterectomy, total hip arthroplasty, total knee arthroplasty and coronary artery bypass graft.
• Study was limited to 50 patients in the operating room

Implications for Practice

• Additional warming therapy like the thermoreflective caps increases normothermia compliance in the operating room.
• Continue to monitor relationship of normothermia maintenance and surgical site infection in the operating room

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