FORCED AIR WARMING GOWNS TO PREVENT UNINTENTIONAL SURGICAL HYPOTHERMIA

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Introduction:
Maintenance of thermoregulation has been shown to reduce surgical complications and is a recognized Surgical Care Improvement Project initiative.

Identification of the problem:
We questioned the effectiveness of thermoregulation using warm cotton blankets in the pre, peri, intra, and post operative settings.

Purpose of the study:
The purpose of our evidence-based project was to compare the effectiveness of our established warmed-blanket method of thermoregulation to the use of forced-air warming gown technology in the prevention of hypothermia in surgical patients.

Methodology:
Using the Iowa Model of Evidence-Based Practice, a nurse-driven project expanded the SCIP colorectal patient population to all peri-operative patients. Data collection for a two-week time frame produced a 189 patient baseline measurement of the incidence of peri-operative hypothermia using heated cotton blankets for warming. A product trial involving 239 patients using the forced air warming gown provided comparison data.

Results:
Results indicated a 26.5% reduction in hypothermia for patients undergoing major surgeries and a 14% reduction in hypothermia for patients undergoing minor surgeries. Environmental and cost analyses demonstrated a 4% cost reduction per patient, a 26% reduction in post-operative infection rates, and a 7 blanket per patient reduction in peri and post-operative blanket use. Unanticipated benefits involved use of the gown’s warm hand pouch pre-IV initiation, which increased successful pre-operative IV starts. Patient’s reported increased comfort and appreciation of control over their preferred temperature. A staff nurse survey demonstrated 85% support for purchase.

Discussion / Conclusion:
This evidence-based project resulted in a significant reduction in hypothermia and related infections, costs and supplies. Practice was changed to implementation of forced-air warming gowns for all surgical patients.

Implications:
With the advancement of technology, the use of forced-air warming gowns achieves better thermoregulation and contributes to greater satisfaction for patients and caregivers in the peri-operative setting.