

Maintaining Normothermia in Surgical Patients
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Problem:

During data collection for the Surgical Care improvement Project (SCIP) at an acute care, three hundred bed county hospital, it was noted that normothermia compliance was below 25% in patients having colorectal surgery. Normothermia is a core temperature of 96.8 degree or above.

Evidence:

A review of literature on maintaining normothermia was done utilizing CINAHL, Pub Med and AORN databases. Search terms used were normothermia, standard of care, perioperative patients and recommendations. There is a plethora of research that documents the causes of hypothermia. Advantages in maintaining hypothermia for increased patient outcomes is well documented. Sessler & Akca 2002 in their study list temperature variations as producing the following negative patient outcomes.

- Adverse myocardial outcomes – 1.5 degree core temperature decrease, triples the risk of myocardial events
- Coagulopathy – Impairs platelet function and coagulation cascade
- Reduces drug metabolism
- Thermal discomfort resulting in patient dissatisfaction
- Surgical wound infection – Thermoregulatory vasoconstriction

Strategy:

Data on all SCIP patients was collected and analyzed over a three months period. The results showed approximately 40% of patient maintained normothermia. The review of the literature provided a strong case for the prevention of hypothermia.

Practice Change:

A standard of Care was prepared based on recommendations from leading perioperative services organization. The standard was trialed for one month.

Evaluation:

Data of patient temperatures was collected for another month and analyzed. There was an increase to 64% of patients maintaining normothermia.

Results:

Evidence indicates that forced-air warming is the most effective method for warming hypothermic patients. Warm fluids and an ambient atmosphere also contribute to normothermia.

Recommendations:

Hypothermia is a preventable cause of healing impairment in perioperative patients. The standard of care developed should be implemented for enhanced patient outcomes. The standard will be displayed on the poster presentation.

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