# **Pre- Operative Warming: Are Cotton Blankets Enough?**

## Introduction

- > Untreated hypothermia can lead to multiple complications including: infection, poor wound healing, cardiac events and death.
- > The American Society of Peri Anesthesia Nurses (ASPAN) has put forth guidelines for pre-warming surgical patients to maintain normothermia. However, the literature is scarce and does not establish a best practice.
- This quantitative, retrospective study was conducted to confirm the practice of using warm cotton blankets pre-operatively to maintain normothermia throughout the surgical experience.

## Significance

- > Up to 70% of patients who undergo anaesthesia experience some form of hypothermia
- Even mild hypothermia can increase the risk of surgical site infection and compromise wound healing.
- > This is one a Surgical Care **Improvement Project measure** (SCIP) first introduced in 2003.

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# Method

- **Quantitative Descriptive Study, using** retrospective chart review.
- Data collected on three types of surgeries.
- 1. DiVinci Robotic 2. Open Abdominal 3.Total Joint
- Primary variable Pre-op and post-op temperature.
- Secondary variable, age, gender, length of anesthesia, operation category and temperature difference pre-op versus post-op.
- **Covariates include age and length of** anesthesia.
- Results
- ✓ Sample 3873 patients
- ✓ Average pre-op temperature : 97.9°F
- ✓ Average post-op temperature : 97.8° F
- ✓ There were 29 cases of temperature <96.8° F in the PACU. 3-Divinci Robotic, 5 Total Joints, 21 Open Abdominal. (19 of the 21 were Caesarean Sections).
  - > Data analysis concluded with a preoperative temperature of 97°F or below, the patient has a 5% risk of exhibiting hypothermia.
  - > Suggesting with 95% certainty patients with a temperature pre-operatively of 97°F will maintain normothermia.



# Data







# Conclusion

- ✓ ASPAN guidelines encourage the practice of pre-warming patients.
- ✓ The data shows the use of warm cotton blankets pre-operatively is sufficient to maintain normothermia.

## **Recommendations for Research**

- Further research is key to providing stronger evidence for this practice.
- Analysis is essential related to normothermia of caesarean section patients.
- Future study could include a wider demographic.

## Acknowledgements:

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### Introduction

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### Method

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# Results

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Cost...

# Conclusion

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