

The effect of the use of Thermopak on patients' body temperature in the preoperative period at the holding.

Abstract of the Thermopak survey at the University Medical Center Utrecht

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Purpose

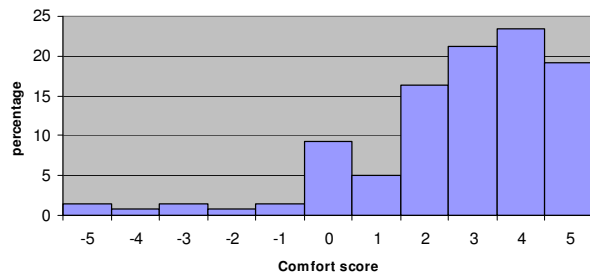
The aim of this study is to determine the effect of prewarming with Thermopak on the core body temperature of ambulatory surgical patients in the preoperative period. The goal is to avoid temperature loss in the preoperative period. Hypothermia in the surgical setting is associated with multiple adverse postoperative outcomes.

Method

This prospective study included 302 patients (103 control group) scheduled for ambulatory surgery. ThermoPak is a passive heating device (sized 65-20-3 cm), which can be preheated to a temperature of 42°C. The temperature of approximately 39°C lasts for 4 hours.

During the preoperative period in the holding the Thermopak was administered on patients belly or breast, underneath the blanket. Core body temperature was measured at arrival and before leaving the holding. Patients were asked to rate their feelings of comfort with Thermopak on a 11-points scale. The range was from -5: it felt not comfortable at all, to 5: very comfortable.

Percentage of patients' comfort score with ThermoPak



Results

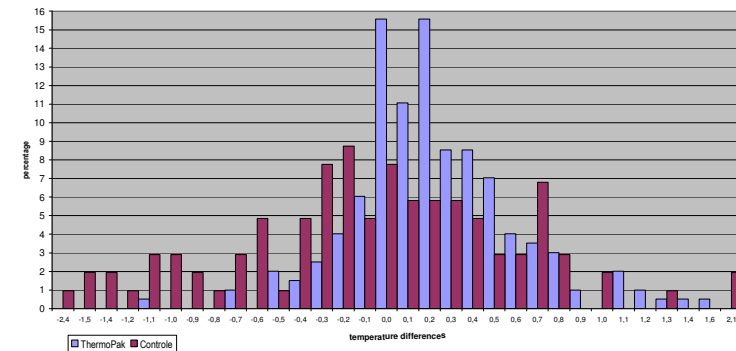
Patient data of intervention and control group were similar. The administration of Thermopak ranged from 2 till 180 minutes with a median and mean time of 30, 40.11 ± 31.72 (SD) minutes respectively.

The body temperature increased in 66.8% (control 42.7%) of the patients; was unchanged in 15.6% (control 7.8%) and decreased in 17.6% (control 49.5%).

The average difference in temperature between holding arrival and departure is + 0.22 °C (± 0.39 SD) in the Thermopak group and -0.07 ± 0.71 °C in the control group. Which was statistically significant.

141 patients rated their comfort with the Thermopak. The majority is content with the Thermopak: comfort score ≥1 (85.1%). 9.2% is indifferent. 5.7% experiences the Thermopak as uncomfortable, mostly because it felt to warm.

Percentage of temperature differences at Holding arrival and departure between patients with and without ThermoPak



Conclusions

The administration of Thermopak in the preoperative period is a safe and comfortable method to prevent body temperature loss in the preoperative period.