ARE POSTOPERATIVE ADULT PATIENTS’ THERMAL COMFORT RATINGS AND TEMPORAL ARTERY THERMOMETER READINGS ACCURATE INDICES FOR IDENTIFYING HYPOTHERMIA?

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Introduction: It’s important to know whether the patient’s response to the question “are you too cold, too hot, or just right?” accurately reflects core temperature and can help detect unplanned perioperative hypothermia (UPH).

Identification of the problem: Little research has been conducted examining the postoperative patient’s perception of thermal comfort in relation to core temperature and UPH.

Purpose of the Study: Measure bladder and temporal artery (TA) temperatures to assess the accuracy of patient thermal comfort report as an index of UPH.

Methodology: Prospective, comparative, descriptive design. 64 adult major surgery patients with temperature sensing bladder catheters were studied. Upon PACU admission, bladder and TA temperatures were measured and patients were asked whether they were too cold, too hot, or just right (thermal comfort). Temperatures, presence of UPH, and thermal comfort ratings were analyzed.

Results: Upon PACU admission, 27 (42%) of the patients had UPH (bladder temperature < 96.8° F; TAT detected no UPH). Most (15) of these 27 hypothermic patients said they felt just right; 6 felt too cold; none felt too hot; and 6 were unable to respond. Most (24) of the 37 normothermic patients also said they felt just right; 2 felt too cold; 5 felt too hot; and 6 were unable to respond. Of the 52 patients who could report thermal comfort, 15 (38%) of the 39 patients who reported they were just right were hypothermic compared with 6 (46%) of the 13 patients who said they were not just right (too cold or too hot) and were hypothermic (P = 0.62).

Discussion/Conclusion: Patient self-report is often used as a measure of thermal comfort. However, anesthesia and opioids impair thermoregulation and thermal perception. Postoperative patients with hypothermia may not feel cold because thermal perception is determined by skin temperature not core temperature. Thermal comfort rating was not an accurate reflection of core temperature. TAT was inaccurate for detecting UPH.

Implications for perianesthesia nurses and future research: Nurses need to use core temperature measurements, not patient reports of thermal comfort or TAT, to identify UPH and guide care. More research on thermal comfort and UPH is needed.