The Effect of Warming Gowns versus Warm Blankets on Perioperative Temperature and Pain in Total Knee Arthroplasty

Ember Benson RN BN MN (Poppy Fund Grand recipient, 2009)

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Total knee arthroplasty (TKA) is a procedure with risks for perioperative hypothermia (PH) and significant postoperative pain. There is the possibility that hypothermia impacts patient’s pain. The aim of this randomized control trial (RCT) was to determine the efficacy of patient controlled active warming to diminish postoperative pain after TKA. Thirty TKA patients received either standard warm cotton blankets (n=15) or the Bair Paws® gown (n = 15) that allowed patient controlled forced-air warming. Patients who received the warming gown had higher PACU temperatures ($p < 0.001$), used less opioid ($p = 0.05$) postoperatively and reported more satisfaction ($p = 0.004$) with their thermal comfort than the standard blanket group. No difference was found between the groups for pain scores ($p = 0.08$). This study shows that patient controlled forced-air warming gowns can enhance perioperative body temperature; reduce the amount of postoperative opioid needed to manage pain; and improve patient satisfaction. Nurses should ensure that effective patient warming methods are employed for all patients particularly when dealing with patients whose thermoregulatory systems are less effective (e.g., elderly patients) and with surgeries considered to be exceptionally painful, such as TKA.

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