Evaluation of a nurse-led intervention to improve adherence to recommended guidelines for prevention of venous thromboembolism for hip and knee arthroplasty patients: A quasi-experimental study

**Background & Aim:** Venous thromboembolism morbidity and mortality of hospitalized patients is a major concern for health professionals. Venous thromboembolism prevention guidelines have been developed, however adherence to guidelines is variable. The aim of this study was to measure adherence to a nurse-led evidence based venous thromboembolism prevention program (intervention) compared to usual care in hip and knee arthroplasty patients and associated clinical outcomes.

**Method:** There were 410 potential participants who were adult patients’ booked for elective hip or knee arthroplasty at the two study sites during a two-year period (2011-2013). Of these, 27 did not meet the inclusion criteria and the remaining were eligible for inclusion in the study (intervention site n=196 and control site n=187, total population n=383). This study adopted a quasi-experimental design, using an intervention and control study site, conducted in two private hospitals in a regional area in Australia.

**Result:** The intervention group had a mean compliance score of 11.09, higher than the control group score of 7.19. This is equivalent to a compliance rate of 85% and 55%, respectively and indicates that adherence at the study site was significantly higher. Patient adherence and outcomes in the post-discharge period were not significantly different between the study sites.

**Conclusion:** This study demonstrated a nurse-led intervention achieved high adherence with translating evidence-based guidelines into routine patient care for hip and knee arthroplasty patients. Nurses can be critical to implementing clinical practice guidelines and adopting preventive programs in acute care to improve patient outcomes and reduce postoperative VTE in arthroplasty patients.

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