We Can Safely Reduce the Utilization of Home Visiting Nurse Services Following Primary Total Joint Arthroplasty

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Introduction: Home visiting nurse services (HVNS) in the post-acute care period following total joint arthroplasty are considered a way to facilitate shorter length of stay (LOS), increase the rate of discharge to home, and decrease complications, readmissions, and cost. Our purpose is to evaluate the value of HVNS as compared to discharge to home without services.

Methods: This is a single surgeon series of 509 primary total hip (THA, n=262) and knee (TKA, n=247) arthroplasty patients over one year at a single institution. For the first six months, patients were discharged home with HVNS, and for the second six months, they were discharged home without HVNS. During the first six-month period, 88.3% of patients were discharged home with no interim rehab transfer, 81.7% with HVNS. During the second six-month period, 95% were discharged home, 3.6% with HVNS. A retrospective analysis compared discharge disposition, LOS, discharge to home rate, complications, reoperations, readmissions, patient satisfaction, and number of office phone calls for the periods with (n=230) and without (n=279) HVNS. Costs were analyzed with Monte Carlo simulation of a decision tree developed from derived probabilities.

Results: The complication rate was similar (3.9% with- vs. 2.9% without-HVNS, $p = 0.62$) except a higher rate of TKA manipulation under anesthesia with HVNS (2.2% vs. 0.4%, $p=0.096$). Weekly office phone calls decreased (11.7 ± 2.6 vs. 9.0 ± 0.7, $p < 0.001$). Patient satisfaction was equivalent. Eliminating HVNS resulted in savings of $1177 per THA and $1647 per TKA, which represents a national annual savings of $341,937,571 for THA and $1,008,209,023 for TKA.

Conclusions: HVNS do not seem necessary after routine primary TJA. Complications, readmissions, and patient satisfaction were equivalent with or without HVNS suggesting overall cost savings (over $1.3 billion annually in the U.S.) with no compromise of patient care by elimination of HVNS.