

Home health care is associated with an increased risk of ED Visit, Readmission, and Cost of Care without Reducing Risk of Complication: A Propensity-Score Analysis

Sean Sequeira, Henry Robert Boucher¹

¹Medstar Health

INTRODUCTION:

Background

Home health services have long been implemented for patients to receive additional professional care and supervision following discharge from the hospital to theoretically reduce the risk of complication and healthcare utilization. The aim of this investigation was to determine if patients assigned home health services exhibited lower rates of medical and surgical complications, healthcare utilization and cost of care following total hip arthroplasty (THA).

METHODS:

Methods

The PearlDiver database was retrospectively reviewed to identify all primary THA patients from 2010 to 2019. Patients who received home health services were matched using a propensity score algorithm to a set of similar patients who were discharged home under self-care. We compared medical and surgical complication rates, emergency room visits, readmissions, and 90-day cost of care between the groups. Multivariate regression analysis was performed to determine the independent effect of home health services on all outcomes.

RESULTS:

Results

7,243 patients received home health services and were matched to 72,430 patients who were discharged home under self care. Patients who received home health services had higher rates of ED visits at 30 days (OR 1.1544; $P = 0.003$) as well as increased readmissions at 30 days (OR 1.137; $P=0.039$); complication rates were similar between groups. Episode-of-care costs for home health patients were higher than those discharged under self-care (\$14,236.97 vs \$12817.12; $P < .001$).

DISCUSSION AND CONCLUSION:

Conclusion

Patients assigned home health care services exhibited higher cost of care without decreased risk of complication and increased risk of early return to the ED and readmission. These findings may suggest that patients may need to be re-evaluated for home health care services and/or these services may need to be restructured to provide the most value for at-risk patients.