

Care Navigation Towards Conservative Care Options Reduces Medical Costs and Utilization for Older Adults with Musculoskeletal Complaints: A Target Trial Emulation

Lucas Bryan Richie, Margaret Danilovich, Andrew Romero, Mary K Motolenich

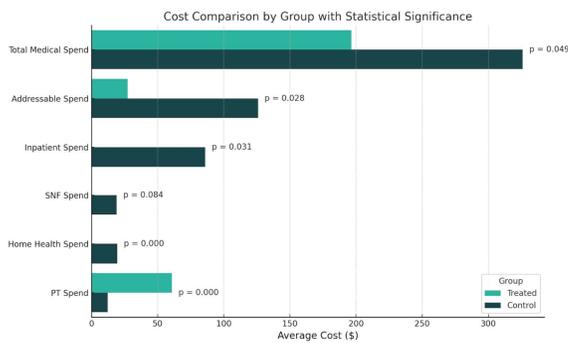
INTRODUCTION: Musculoskeletal (MSK) care navigation programs are novel strategies to promote conservative treatment strategies for patients. However, the cost-effectiveness and impact of these programs remain limited. The purpose of this study was to examine differences in healthcare utilization and costs among Medicare Advantage patients who engaged in a care navigation program vs. those who did not.

METHODS:

We conducted a retrospective cohort study with patients with MSK conditions from one Medicare Advantage plan in Atlanta, Georgia, who engaged in a novel MSK care navigation program. Using propensity score matching (PSM), patients were matched into treatment and control groups using 1:1 matching, adjusting for baseline characteristics. Patients were matched based on age, gender, MSK risk category, number of comorbidities, area deprivation index, and prior MSK utilization. Eligible patients were those who participated in a payer-led care navigation program between 10/2023 and 6/2024 and had 12 months of historical claims data prior to engagement and 6 months of claims data following engagement. The control group included eligible but unengaged patients.

RESULTS: The matched cohorts (N=238) demonstrated excellent balance (average SMDs <0.03). Engagement in care navigation that led to participation in PT was associated with a \$129.55 PMPM less than controls (\$196.38 vs. \$325.93; p = 0.049), driven by avoided inpatient and home health costs. This occurred despite PT spend and utilization increasing five-fold (\$60.79 vs. \$12.17; p < 0.001) and (3.83 vs. 0.82 visits; p < 0.001), respectively. Among patients navigated to RICE and/or watchful waiting, PMPM costs were \$147 lower than in the control group (\$65.10 vs. \$212.10, p < 0.001).

DISCUSSION AND CONCLUSION: MSK care navigation that encourages patients to adopt evidence-based guideline-recommended conservative care approaches reduces total MSK costs among Medicare Advantage members without compromising access to necessary MSK care. These findings support broader integration of conservative care strategies within orthopedic value-based care models.



Variable	Treated Mean	Control Mean	SMD
Surgery Indicator	0.002	0.002	0.001
Full Dual Eligible	0.034	0.035	-0.009
Area Deprivation Index	1.696	1.813	-0.065
Total Diagnoses	2.731	2.638	0.073
Age	69.991	70.036	-0.005
Gender (Female=1)	0.625	0.618	0.015