

Outpatient Treatment Approach Differences for Stroke Survivors in Rural, Nonrural, & Socially Disadvantaged Communities: A Retrospective Analysis

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PURPOSE: Despite evidence that rehabilitation improves stroke survivors' function and quality of life, access to outpatient occupational therapy is limited. Additionally, real-world treatment approaches are not well known. The objective of this study was to analyze treatment billing practices to answer the following: What types of treatments do stroke survivors receive? And does it differ in rural, nonrural, and socially disadvantaged communities?

DESIGN: The study design was a retrospective, descriptive cohort analysis using the 2018 and 2019 5% Medicare Limited Data Sets (LDS) from the Centers for Medicare and Medicaid Services for adult ischemic stroke survivors.

METHOD: Stroke survivors who received outpatient rehabilitation were identified. Then, rehabilitation Current Procedural Terminology (CPT) treatment codes were used to examine differences in outpatient therapy treatment approaches. Stroke survivors were stratified into stroke severity, rural, non-rural, and socially disadvantaged (SDA) subpopulations. Results are reported in frequency counts and proportions with chi-squares to determine statistically significant group differences.

RESULTS: For the 9,076 stroke survivors in this cohort, the most frequently used CPT codes were Therapeutic Exercise (31.3%), Therapeutic Activity (20.4%), and Neuromuscular Re-Education (19.6%). Interestingly, rural patients with severe strokes experienced less Neuromuscular Re-Education (22.5% for nonrural versus 13.5% rural) and more Therapeutic Exercise (28.5% non-rural versus 42.8% rural). For socially disadvantaged stroke survivors, Self-Care treatments were alarmingly rare (0.2%).

CONCLUSIONS: This study is impactful because it describes treatment approach discrepancies for stroke survivors based on their county residence. The results may drive further conversation about policy changes such as increased telerehabilitation reimbursement to create equitable access to stroke rehabilitation treatment.

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