SPECIFIC AIMS

Over 300,000 older adults are hospitalized for hip fractures each year in the U.S., with estimated costs exceeding $10 billion.[1,2] The incidence of hip fractures in patients with Alzheimer's disease and related dementias (ADRD) is 2.7 times higher than it is in those without ADRD.[3,4] Hospitalization for any reason in patients with ADRD increases their vulnerability for deconditioning, and this is further exacerbated with incidence of hip fracture, as it is significantly associated with profound poor functional outcome and mortality.[5] Additionally, racial and ethnic minorities have limited access to post-acute care and continuity of care, resulting in worse outcomes.[6-9] Furthermore, the number of minorities affected by ADRD is growing at an alarming rate, with African Americans having the highest prevalence of ADRD (13.8%) followed by Hispanics (12.2%), non-Hispanic whites (10.3%), and American Indian/Alaska Natives (9.1%),[10] but post-acute care for this condition is more likely to be delayed among minority groups. Following an acute hospitalization for hip fracture, there are no standardized transitions of care models for patients with ADRD. Additionally, there is a lack of knowledge on how transitions vary by race/ethnicity. This lack of knowledge about care transitions may impact continuity of care and health outcomes among minority patients with ADRD after hip fracture, which may exacerbate disparities in transitions of care.

After acute hospitalization for hip fracture, patients often experience multiple care transitions from acute hospitals to post-acute settings and between post-acute settings, such as inpatient rehabilitation facilities (IRF), skilled nursing facilities (SNF), home health (HH), and hospice. The Institute of Medicine defines access to healthcare as a "timely use of personal health services to achieve best health outcomes".[11] For individuals with ADRD, after hip fracture this access to appropriate post-acute rehabilitation care is even more critical in preventing further functional decline. It is not clear which pattern of post-acute care is most effective and likely to maximize health outcomes. Additionally, to achieve long-term intended health outcomes (community stay) and avoidance of unwarranted health outcomes, effective transitions between care settings (acute-post-acute-community), and efficient care delivery throughout the continuum of care must be understood. Variation in these transitions by race may increase disparities in outcomes such as **poor functional recovery**, **hospital readmission**, **admission to long-term nursing home**, and inability to return to the **community successfully** for persons with ADRD. The ***long-term goal*** of our research is to improve the quality of care transitions among frail patients and reduce disparities among minorities. The ***objective*** of this administrative supplement is to assess differences among transitions of care by race, focusing on individuals with ADRD after acute hospitalization for hip fracture. Prior research has not focused on multiple transitions (SNF to HH versus IRF to HH), especially in minority older adults with ADRD following hospitalization after hip fracture. **Our specific aims are**:

Aim 1A: Explore transitions of care from acute to post-acute settings (IRF, SNF, HH, Hospice) for patients with ADRD after acute hospitalization for hip fracture. *This is the exploratory aim of our research study to identify patterns and number of transitions* between post-acute care settings *throughout a 90-day episode of care starting with acute hospitalization for the incidence of hip fracture.*

Aim 1B: Examine racial differences (non-Hispanic whites versus blacks, versus Asians, versus Hispanics versus Native Americans) in transitions of care for patients with ADRD after acute hospitalization for hip fracture. ***Hypothesis 1B*****:** *Minorities will be less likely to be discharged to SNF/IRF as compared to non-Hispanic whites*.

Aim 2A: Examine associations between transitions of care and patient-centered outcomes (hospital readmission, community discharge, long-term nursing home placement) after accounting for patient-, facility-, and region-level confounders.

Aim 2B: Examine the impact of number of transitions on patient-centered outcomes (hospital readmission, community discharge, long-term nursing home placement). ***Hypothesis 2***: *Receiving care in HH after acute hospital stays and more transitions will be associated with higher rates of hospital readmissions and long-term nursing home placement*.

This study will address the limitations of prior research by using nationally representative 100% Medicare data and linking with clinical assessment files from three post-acute care functional assessment and hospice claims data, for the years 2016-2019. We employ robust analytical methods to control for confounders, to examine the impact of different transition patterns between post-acute settings and health outcomes in older adults with ADRD. We expect that this project will provide an understanding of racial disparities in the transition of care for those with ADRD. Our findings could aid in the development of strategies that improve the health status of older adults with ADRD among underserved populations and inform health care practices aimed at reducing health disparities in ADRD care. This research addresses several research priorities of the NIH by examining effective use of post-acute care, and ultimately improving health care of frail, ADRD, and underrepresented populations.[12]