
CONFERENCE ABSTRACT**Population segmentation of older adults with a hip fracture based on hospital and community care trajectories: Who waits, gets prioritized or returns home and where are the inequities?**

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The care trajectories of older adults with hip fracture can vary widely both during their hospital stay and afterwards upon return to the community. Understanding which care trajectory result in better outcomes for which patients is an essential approach to population health management. We learned from patients with a past hip fracture and their caregivers that there can be significant challenges faced along the care trajectory due to: long wait times, strict inclusion criteria for rehab programs and issues with care transitions from acute care to rehab and to the community. These challenges with access to care along the care trajectory may be associated with adverse outcomes including poor patient experience, extended hospital stays, unplanned readmissions and death.

To gain insights into the characteristics of sub-groups (population segments) of older adults that share similar care trajectories we performed a retrospective cohort study of all older adults (65 years and older) with a hip fracture who were admitted over the past three fiscal years (April 2019-March 2022) to acute care at a large community hospital in Mississauga, Ontario -- one of the most ethnically diverse cities of Canada where half of the population is foreign born. We used comprehensive population-based administrative health care data inclusive of acute and post-acute hospitals, institutional and home-based long-term care, physicians, and medication records. Following a methodology that we implemented as part of the International Collaborative on Costs Outcomes and Needs In Care (ICCONIC) published in 2021, we created care trajectories for hip fracture patients that included the sequential care settings within the hospital stay: emergency room, surgery, post operation; and after the hospital stay: rehabilitation, institutional and community-based care.

We have extracted the cohort (N=1421, mean age 80.7 years, 63% female, mean length of stay in acute care 14.9 days). Just over 7% of patients died within initial acute hospitalization; 47% were discharged to inpatient rehabilitation; 24% discharged to rehabilitation at home. 7% were transferred to nursing homes and 13% discharged to home with no formal nursing or rehabilitation care. Considering annual trends there was a marked increase in the proportion who experienced a delayed discharge from hospital that doubled from 21% in 2019 to 45% in 2021 coincident with COVID19 and subsequent challenges in transferring patients. We report on overall outcomes and discuss challenges and opportunities to improve care for older adults who experience a hip fracture.

Versloot: Population segmentation of older adults with a hip fracture based on hospital and community care trajectories: Who waits, gets prioritized or returns home and where are the inequities?

As a next step, we will present our findings to patients, caregivers, health care providers to validate the results and gain insights into their experiences receiving and providing care along these care trajectories. These results describe the current care practices which will serve to identify care gaps and opportunities to improve the care experience and reduce inequities for older adults.