MULTIMORBIDITY AND HEALTHCARE UTILIZATION AMONG HOME CARE CLIENTS WITH DEMENTIA IN ONTARIO, CANADA: A RETROSPECTIVE ANALYSIS OF A POPULATION-BASED COHORT (PUBLICATION)



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## CONTEXT

For older adults with dementia in the community, multimorbidity – the co-occurrence of multiple chronic conditions – can result in challenges to both self-care and provided care, and can lead to poor health outcomes. Important gaps exist in our understanding of the interplay between multimorbidity, health system use, and continuity of physician care, particularly for individuals with dementia.

# OBJECTIVES

This retrospective study was designed to estimate the risk of acute care hospitalization and emergency department (ED) visits by level of multimorbidity (i.e., chronic disease burden) in a home care cohort with dementia in Ontario. We sought to determine whether the risk of these outcomes was lower for persons that more frequently visited the same physician for ongoing medical care (i.e., for persons with greater continuity of physician care, COC).

### METHODS

We identified 30,112 long-stay home care clients (mean age  $83.0 \pm 7.7 \text{ y}$ ) with dementia in 2012 using routinely collected health administrative and clinical assessment data. We defined level of multimorbidity (chronic disease burden in addition to dementia) based on a count of the presence of 16 high impact chronic conditions. Multivariable Fine-Gray regression models were used to determine the 1-year risk of acute hospitalization (for any cause) and 1-year risk of ED visits (not resulting in an inpatient stay) by multimorbidity status, accounting for competing risks of long-term care placement and death. Interaction terms were used to determine whether COC modified these associations.

### FINDINGS

Multimorbidity was highly prevalent in this population – 89% of the cohort had been diagnosed with two or more conditions in addition to dementia; 35% had been diagnosed with five or more conditions. In multivariable models, risk of hospitalization and risk of ED visit increased monotonically with greater multimorbidity: risk was 88% greater and 63% greater, respectively, among persons with 5+ conditions, relative to those with dementia alone or with one other condition. Associations were similar among clients that had high and low physician continuity.

### CONCLUSIONS

Among older home care clients with dementia, multimorbidity is highly prevalent and is associated with an increased likelihood of costly inpatient admissions and ED visits. Data from this study highlight the need to reshape models of care for this complex population. Additional research is necessary to investigate factors that may modify a patients' risk of poor health outcomes to inform care strategies.

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