

A prospective study of symptoms, function, and medication use during acute illness in nursing home residents

Overview

Nursing home residents are at high risk for developing acute illnesses. Compared with community dwelling adults, nursing home residents are often more frail, prone to multiple medical problems and symptoms, and are at higher risk for adverse outcomes from acute illnesses. In addition, because of polypharmacy and the high burden of chronic disease, nursing home residents are particularly vulnerable to disruptions in transitions of care such as medication interruptions in the setting of acute illness. In order to better estimate the effect of acute illness on nursing home residents, we have initiated a prospective cohort study which will allow us to observe patterns of acute illnesses and the consequence of acute illnesses, including symptoms and function, among nursing home residents. We also aim to examine the patterns of medication interruption, and identify patient, provider and environmental factors that influence continuity of medication prescribing at different points of care transition.

Methods

This is a prospective cohort of nursing home residents residing in two nursing homes in a metropolitan area—Jewish Home Lifecare, New York, NY and the James J. Peters VA Community Living Center in Bronx, NY. Residents are eligible to be enrolled in the study if they are receiving opioids, antidepressants, or antipsychotics on a routine basis for a duration of time considered to be a minimal therapeutic trial. Baseline characteristics including age, gender, race, and comorbid conditions are recorded. Participants are followed longitudinally for a period of 3 years. We record acute illness incidence and characteristics, patterns of maintenance and interruption of the target medications, and measure symptoms including depression, pain, withdrawal symptoms, and function using standardized scales.

Status

76 nursing home residents have been followed for a median of 666 days to date. At baseline, mean age of residents was 74.4 (\pm 11.9); 31.9% were female; 59% were white. The most common chronic conditions were dementia (41%), depression (38%), congestive heart failure (25%) and chronic obstructive lung disease (27%). Mean pain score was 4.7 (\pm 3.6) on a scale of 0 to 10; Geriatric Depression Scale (GDS-15) score was 5.2 (\pm 4.4; note: a GDS-15 score of 5-9 indicates possible depression). During follow up, 138 acute illness episodes were identified, for an incidence of 1.5 (SD 2.0) episodes per resident per year; 74% were managed in the nursing home and 26% managed in the acute care setting. In our planned analysis, we will further estimate the effect of the use and interruption of target medications on withdrawal and relapse symptoms and illness outcomes.

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Publications

Liu, S, and Boockvar, KS. Continuity of care for pain, depression, and psychosis for older adults. Yale University School of Medicine doctoral thesis (2008).

Hung, W, Liu, S, and Boockvar, KS. A prospective study of symptoms, function, and medication use during acute illness in nursing home residents: design, rationale and cohort description. BMC Geriatrics (in press).

Presentations

Suchanek, M and Boockvar, KS. (May 2006) Discontinuation of standing opioid orders in individuals transferred from nursing home to hospital. Poster presented at the annual meeting of the American Geriatrics Society, Chicago, IL.

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