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POSTER PRESENTATION

End-of-life burdensome interventions among Medicare fee-for-service beneficiaries with no dementia, non-advanced dementia, and advanced dementia

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Abstract

Background: Older adults with dementia have difficulties communicating their treatment preferences and experience end-of-life burdensome interventions with discomfort and limited benefits. This study compared utilization of burdensome interventions during the last 90 days of life among Medicare fee-for-service (FFS) beneficiaries with no dementia, non-advanced dementia, and advanced dementia.

Method: This study utilized data from 2000-2016 Health and Retirement Study (HRS) linked with Medicare and Medicaid claims, and HRS Exit Interviews. We quantified rates of imaging tests and life-sustaining treatments during the last 90 days of life among those with no dementia, non-advanced dementia, and advanced dementia. Life-sustaining treatments include tube feeding, intensive care unit care, cardiopulmonary resuscitation, and invasive mechanical ventilation. Among patients with a claims-based diagnosis of dementia, we classified them as having advanced dementia if they had three or more activities of daily living limitations and any diagnosis of malnutrition, pressure ulcer, incontinence, or aspiration pneumonia. We used logistic regression to examine factors associated with end-of-life imaging tests and life-sustaining treatments.

Result: A higher proportion of beneficiaries with non-advanced dementia (68%) and advanced dementia (79%) had end-of-life imaging tests, compared to those without dementia (57%) ($p<0.01$). Beneficiaries with dementia were more likely than non-dementia beneficiaries to receive these imaging tests, controlling for patient characteristics (non-advanced dementia: OR = 2.2 [95% CI 2.0-2.5]; advanced dementia: OR = 5.4 [4.5-6.5]). The proportion of receiving end-of-life life-sustaining treatments was lower among the non-advanced dementia cohort (23%), compared to non-dementia (27%) and advanced-dementia (27%) individuals ($p<0.01$). After adjusting for patient characteristics, beneficiaries with dementia were more likely than those without dementia to receive at least one life-sustaining treatment (non-advanced dementia: OR = 1.1 [1.0-1.2]; advanced dementia: OR = 1.9 [1.6-2.3]). Younger age, survey self-respondents, beneficiaries with fewer instrumental activities of daily living

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limitations and no advance care planning were more likely to have end-of-life imaging tests and life-sustaining treatments.

Conclusion: Our findings suggest that older adults with dementia, especially advanced dementia, are more likely to receive end-of-life burdensome interventions compared to individuals without dementia. Advance care planning involving patients with dementia, their families, and physicians about end-of-life treatment may improve the quality of care.

Figure 1. Odds ratio of imaging tests among beneficiaries with non-advanced dementia and advanced dementia (reference: non-dementia beneficiaries), last 90 days of life

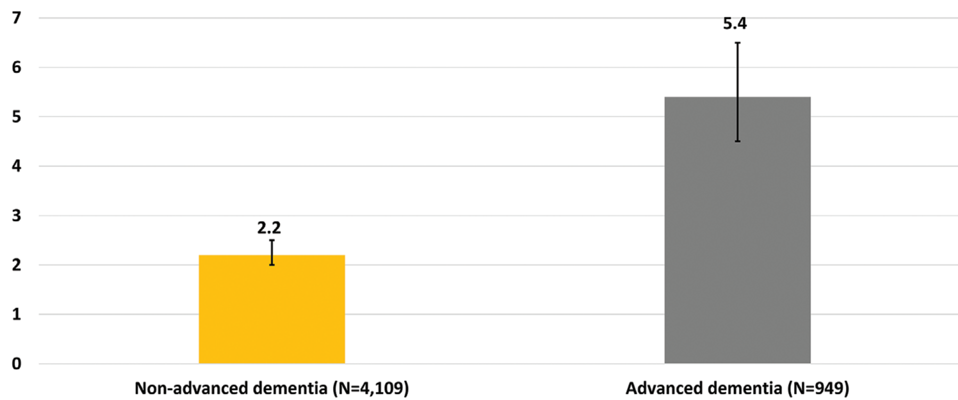

Figure 2. Odds ratio of life-sustaining treatments among beneficiaries with non-advanced dementia and advanced dementia (reference: non-dementia beneficiaries), last 90 days of life