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**SPECIAL ARTICLE**

# End-of-Life Transitions among Nursing Home Residents with Cognitive Issues

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## BACKGROUND

Health care transitions in the last months of life can be burdensome and potentially of limited clinical benefit for patients with advanced cognitive and functional impairment.

## METHODS

To examine health care transitions among Medicare decedents with advanced cognitive and functional impairment who were nursing home residents 120 days before death, we linked nationwide data from the Medicare Minimum Data Set and claims files from 2000 through 2007. We defined patterns of transition as burdensome if they occurred in the last 3 days of life, if there was a lack of continuity in nursing homes after hospitalization in the last 90 days of life, or if there were multiple hospitalizations in the last 90 days of life. We also considered various factors explaining variation in these rates of burdensome transition. We examined whether there was an association between regional rates of burdensome transition and the likelihood of feeding-tube insertion, hospitalization in an intensive care unit (ICU) in the last month of life, the presence of a stage IV decubitus ulcer, and hospice enrollment in the last 3 days of life.

## RESULTS

Among 474,829 nursing home decedents, 19.0% had at least one burdensome transition (range, 2.1% in Alaska to 37.5% in Louisiana). In adjusted analyses, blacks, Hispanics, and those without an advance directive were at increased risk. Nursing home residents in

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## MEDIA IN THIS ARTICLE

### FIGURE 1



State Variations in the Proportion of Nursing Home Residents with Advanced Cognitive Impairment Who Had at Least One Burdensome Transition.

### TABLE 1

Characteristics of the Patients, According to the Number of Burdensome Transitions.

regions in the highest quintile of burdensome transitions (as compared with those in the lowest quintile) were significantly more likely to have a feeding tube (adjusted risk ratio, 3.38), have spent time in an ICU in the last month of life (adjusted risk ratio, 2.10), have a stage IV decubitus ulcer (adjusted risk ratio, 2.28), or have had a late enrollment in hospice (adjusted risk ratio, 1.17).

## CONCLUSIONS

Burdensome transitions are common, vary according to state, and are associated with markers of poor quality in end-of-life care. (Funded by the National Institute on Aging.)

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[Disclosure forms](#) provided by the authors are available with the full text of this article at NEJM.org.

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## SOURCE INFORMATION

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