



In the Literature

THE COSTS AND POTENTIAL SAVINGS ASSOCIATED WITH NURSING HOME HOSPITALIZATIONS

David C. Grabowski, Ph.D.
A. James O'Malley, Ph.D.
Nancy R. Barhydt, Dr.P.H., R.N.

Health Affairs
November/December 2007
26(6):1753-61

Full text is available at:
<http://content.healthaffairs.org/cgi/content/abstract/26/6/1753?ikey=T5IAMCAI8urkY&keytype=ref&siteid=healthaff>

For more information about this study, contact:

David G. Grabowski, Ph.D.
Associate Professor
Health Care Policy
Harvard Medical School
grabowski@hcp.med.harvard.edu
or

Mary Mahon
Senior Public Information Officer
The Commonwealth Fund
212-606-3853
mm@cmwf.org

This summary was prepared by Christopher Gearon and Deborah Lorber.

Commonwealth Fund Pub. 1070
November 2007

In the Literature presents brief summaries of Commonwealth Fund-supported research recently published in professional journals.

THE COMMONWEALTH FUND
ONE EAST 75TH STREET
NEW YORK, NY 10021-2692
TEL 212.606.3800
FAX 212.606.3500
E-MAIL cmwf@cmwf.org
www.commonwealthfund.org/

Better prevention and treatment of pneumonia and other common ambulatory conditions in nursing homes could reduce avoidable hospitalizations for residents while saving Medicare and other public programs money, according to a Commonwealth Fund-supported study in the journal *Health Affairs*.

Using hospital and nursing home data from New York State, David C. Grabowski, Ph.D., of Harvard Medical School, and colleagues found that inflation-adjusted spending on nursing home hospitalizations rose 29 percent from 1999 through 2004, with aggregate spending totaling \$972 million by 2004. Nearly one-quarter of these costs were for ambulatory care-sensitive conditions, including pneumonia, kidney or urinary tract infections, and congestive heart failure.

“The high concentration of spending in relatively few conditions suggests that targeted prevention and treatment interventions in nursing homes could be particularly fruitful,” the authors said in their article, “[The Costs and Potential Savings Associated with Nursing Home Hospitalizations](#)” (*Health Affairs*, Nov./Dec. 2007).

One-Third of Nursing Home Hospitalizations Are Avoidable

Until now, little has been known about the amount of savings associated with nursing home hospitalizations. Using New York State data, the researchers found annual total spending on nursing home hospitalizations increased from about \$608 million in 1999 to \$971.7 million in 2004. In examining ambulatory care-sensitive hospitalizations,

the team found annual total spending rose from \$169 million in 1999 to \$223.8 million in 2004, or a 7.1 percent increase in spending when adjusted for inflation.

The researchers also looked at 14 ambulatory-care sensitive conditions to identify potentially avoidable hospitalizations. Of the 122,027 nursing home hospitalizations over the period, nearly one-third (31.3%) were deemed potentially avoidable. Such hospitalizations accounted for \$1.24 billion in spending (in 2004 dollars). Pneumonia was the most common diagnosis, accounting for 33 percent of ambulatory-care sensitive hospitalizations, followed by kidney/urinary tract infections, congestive heart failure, and dehydration. The average spending per ambulatory-care sensitive hospitalization was \$10,140.

The researchers offer several explanations for the higher rates of hospitalization: the increasingly sicker and more disabled population served by nursing homes; the growing nursing shortage; a recent increase in lawsuits, which has led facilities to hospitalize patients to avoid litigation; and nursing home cost growth that outpaces payment rates, leaving homes without the resources to care for residents.

New Policies Could Yield Big Savings

The authors contend that policies to decrease potentially avoidable nursing home hospitalizations could result in substantial savings, including:

- *Integrating Medicare and Medicaid payments via capitation.* Medicare typically covers hospital-related costs of nursing home

residents; state Medicaid programs therefore may have less financial incentive to provide nursing homes with resources to avoid such preventable hospitalizations.

- *Paying nursing homes based on performance.* The planned federal nursing home Value-Based Purchasing Demonstration, for example, will use Medicare savings from reduced avoidable hospitalizations to reward better-performing facilities.
- *Instituting more stringent regulatory requirements.* The Centers for Medicare and Medicaid Services (CMS) could require nursing homes to provide increased nursing and medical staff, for example. But, with numerous states facing budget shortfall, it is unclear whether Medicaid would be able to cover the increased costs.
- *Publicizing performance on nursing home hospitalizations.* CMS could disseminate a new risk-adjusted measure of potentially avoidable hospitalizations on the Nursing Home Compare Web site.

Facts and Figures

- As found in previous research, more than 15% of long-term nursing home residents are hospitalized in any given six-month period; approximately 40% of nursing home-hospital transfers are considered inappropriate.
- In 2004, Medicare paid for 84% of the cost of ambulatory-care sensitive nursing home hospitalizations in New York State, while Medicaid covered 12% and other payers footed 4% of such costs.
- The overall number of nursing home days decreased 5.4% in New York State from 1999 to 2004, but the total number of nursing home hospitalizations increased 30.1%.

Ambulatory Care-Sensitive Nursing Home Hospitalizations, New York State, 1999-2004

Rank	Condition	Number	% of total	Total spending (millions, \$2004)	% of total spending	Mean spending (\$)
1	Pneumonia	40,580	33.25	456.6	36.90	11,252
2	Kidney/urinary tract infection	21,476	17.60	200.9	16.24	9,354
3	Congestive heart failure	20,116	16.48	210.8	17.04	10,481
4	Dehydration	10,650	8.73	89.1	7.20	8,366
5	Chronic obstructive pulmonary disease	9,494	7.78	98.3	7.95	10,357
6	Grand mal status and epileptic convulsions	5,719	4.69	49.4	3.99	8,637
7	Cellulitis	5,234	4.29	47.5	3.84	9,067
8	Diabetes	4,778	3.92	52.6	4.25	11,015

Source: Adapted from D. C. Grabowski, A. J. O'Malley, and N. R. Barhydt, "The Costs and Potential Savings Associated with Nursing Home Hospitalizations," *Health Affairs*, Nov./Dec. 2007 26(6):1753-61. Data: Minimum Data Set (MDS), and Statewide Planning and Research Cooperative System (SPARCS).