

HEART OF THE MATTER

End-of-Life Care: Its Cost in Heart Failure

End-of-life care is considered a factor in the explosion of American health care costs in the past decade, and decreasing its cost is one of the targets included in current health care legislation.

Expenses incurred for end-of-life care are part of the estimated \$700 billion wasted in health care annually in the United States. Mitigating these costs can lead to a significant decrease in the cost of health care and insurance premiums.

Cost comparisons of large referral centers such as the Mayo Clinic with hospitals that provide front-line care in urban centers have provided examples of this excess. Health planners have reported that the costs of end-of-life care in referral centers are half as much as those at other hospitals.

They have given little credence to the variation in socioeconomic environments in which health care is provided.

The examination of comparative data has emphasized the high costs of technology and an array of expensive consultants who are brought to the bedsides of terminally ill patients. Those studies have suggested that little patient benefit results from these futile and expensive efforts.

All of these end-of-life analyses have consistently used retrospective analysis of patients who have died, examining the cost of their care from hospital admission to death.

A recent analysis of six major teaching hospitals in California considered the issue from a different perspective by "looking forward" or prospectively from the time of admission at the costs and benefits of intensive medical care for patients identified as high risk (*Circ. Cardiovasc. Qual. Outcomes* 2009;2:548-57).

Researchers examined the relationship of in-hospital resource use on mortality during a 180-day period in 3,999 patients hospitalized for heart failure "looking forward" or prospectively, to 1,639 patients who died during the same time period "looking backward" or retrospectively.

Patients in the two groups were risk-adjusted to provide comparability of baseline characteristics.

The investigators found that in a prospective analysis of these teaching hospitals, the increased resource utilization

was associated with improved mortality outcomes and lower costs.

The number of days hospitalized also was significantly decreased in the survival study compared with retrospective analysis of the patients who had died.

There was considerable variation in resource use between hospitals but even within the hospitals studied, the institution with the highest cost had the best outcome. In-hospital mortality for the "looking forward" group ranged between 2.2% and 4.7% and the 180-day mortality ranged from 17% to 26%. These rates are very similar to previously reported registry data for heart failure admission.

One might question whether heart failure patients should be used to examine end-of-life issues.

It is not easy for physicians to identify patients who are at high risk upon admission. Many patients who are admitted with severe heart failure improve dramatically with aggressive therapy, and most of them leave the hospital.

Nevertheless, within the population of severely ill heart failure patients there are individuals whose 180-day mortality speaks a significant rate that is comparable with patients who have cancer. In fact, it is clear that within the heart failure population, severe mortality populations exist that current therapy has had little impact on and that are difficult to identify upon admission.

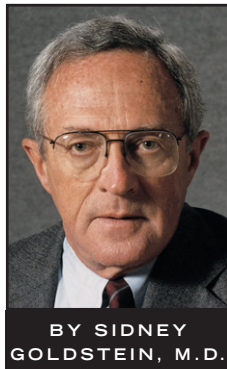
The pressure to establish methodologies to limit health care costs within the framework of new health care legislation requires a more sophisticated approach to the modulation of cost.

The analysis cited above emphasizes the complexity of the cost issues that go into choosing care pathways at the bedside. The emphasis on the cost differential between referral centers such as the Mayo Clinic and teaching hospitals that provide acute urban care based on fatal outcomes does not help in the resolution of the therapeutic decision in high-risk patients.

This new analysis raises important questions and provides a methodology that can expand our understanding of the complexities of end-of-life care and its costs. It

can identify where efficiencies can be introduced to bring comfort to both our patients and our pocket-books. ■

DR. GOLDSTEIN, *medical editor of CARDIOLOGY NEWS*, is professor of medicine at Wayne State University and division head emeritus of cardiovascular medicine at Henry Ford Hospital, both in Detroit.



BY SIDNEY GOLDSTEIN, M.D.

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Photo Editor Catherine Harrell

Sales Director, IMNG

Mark E. Altier, 973-290-8220, m.altier@elsevier.com

National Account Manager

Christy Tetterton, 973-290-8231, c.tetterton@elsevier.com

Advertising Offices 60 Columbia Rd., Bldg. B, 2nd fl., Morristown, NJ 07960, 973-290-8200, fax 973-290-8250

Classified Sales Manager, IMNG

Robert Zwick 973-290-8226, fax 973-290-8250, r.zwick@elsevier.com

Editorial Offices 5635 Fishers Lane, Suite 6000, Rockville, MD 20852, 877-524-9336, cardiologynews@elsevier.com

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Reprints Call 240-221-2419

Director of Information Technology Doug Sullivan

Senior Systems Administrators Lee J. Unger, Kreg M. Williams

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Circulation Analyst Barbara Cavallaro, 973-290-8253, b.cavallaro@elsevier.com

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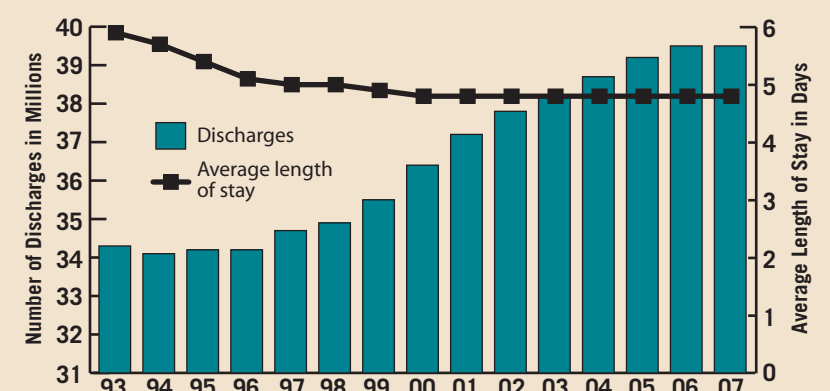


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VITAL SIGNS

Average Length of Inpatient Stays Stabilized in 2000; Number of Stays Continued to Rise



Note: Based on data from the Nationwide Inpatient Sample. From 1998 to 2006, growth in the number of discharges exceeded population growth.
Source: Agency for Healthcare Research and Quality

Case Study In:

Colesevelam Hydrochloride for Management of a Patient With Type 2 Diabetes Mellitus and Hyperlipidemia

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