

Lifting the Veil: How the local delivery system influences care at the end of life

Remarkable advances in biomedicine and public health have led to improved survival and quality of life in the United States, but the quality of care provided to patients at the end of life remains seriously deficient. Even though many wish to die at home, two-thirds of Americans die in institutional settings. Almost 25% have inadequate control of symptoms such as pain or shortness of breath, and over half have inadequate emotional support (Teno, 2004).

As those most directly responsible for the care of seriously ill and dying patients, physicians face increasing pressure to respond to these concerns.

Better evidence can certainly help, and the recently released BMJ paper, *Putting evidence into practice: Palliative care* offers a valuable source of the most recent evidence on palliative and end-of-life care.

“Most of us practice all our lives without being able to step back and look at both our own practice—and those of others. The Atlas reveals that it is possible to practice in other ways.”

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But better evidence—on its own—is unlikely to be enough. Many physicians will need to practice in new ways. We believe that a recent report by the Dartmouth Atlas Project should help in two ways (Wennberg, 2008). First, it allows physicians the rare opportunity to step back and see not only how they currently practice, but how their practice patterns compare with those of physicians in other local delivery systems. Second, the report provides important insights into the causes of these differences in practice and the kinds of clinical and policy changes that will be required to improve care at the end-of-life.

The study focuses on Medicare beneficiaries at the end of life. Because seriously ill patients are highly loyal to their hospitals and physicians, it is possible to identify the Medicare populations cared for by each hospital—and to compare their care.

Consider the example in the table below. Patients near death at Cedars-Sinai in Los Angeles spend much more time in the hospital (especially in the ICU), have many more physician visits (predominantly specialists) and are much less likely to be enrolled in

Care for Medicare beneficiaries in their last 6 months of life at U.S. hospitals		
	Scott and White Memorial Hospital	What about your hospital?
Hospital days	9.6	
ICU days	1.5	
Total MD visits	20.6	
Primary care	10.3	
Medical specialist	8.9	
% Deaths with ICU	13.0	
% using hospice	45.3	
Medicare spending	\$23,368	
		To find out go to www. dartmouthatlas.org And click on “data tools”
		Cedars-Sinai Medical Center
		24.4
		9.2
		79.3
		18.8
		55.8
		40.0
		19.6
		\$57,366

Note: Data are for Medicare fee-for-service beneficiaries for whom each hospital was the predominant provider during their last 2 years of life and are the average for 2001–2005.

hospice than those cared for at Scott and White, a large multispecialty group practice in Texas. The Dartmouth Atlas now allows physicians at all but the smallest U.S. hospitals to see where their local delivery system falls on this spectrum.

In the remainder of this essay, we briefly summarize what we have learned over the past 30 years of research about the causes, consequences, and implications of these variations in practice.

What the research reveals

Patients with chronic illness are treated very differently in different regions and different hospitals. The average number of days spent in the hospital by seriously ill Medicare beneficiaries during their last 6 months of life varies more than threefold. Utilization rates for other services, such as physician visits and the number of different physicians seen during the last 6 months of life, are highly correlated with inpatient utilization. (We refer to these services as “supply-sensitive” because greater use is associated with a greater local supply of that specific resource (Wennberg, 2002). And the patterns of practice seen for patients near the end of life reflect how care is provided to other patient populations. Regions or hospitals with higher-intensity patterns of practice for their end-of-life patients also treat their heart disease or cancer patients more intensively (more time in the hospital, more different specialists). And these differences aren’t due to differences in illness levels.

A higher-intensity practice pattern doesn’t lead to better quality or outcomes. Extensive research—both across U.S. regions and among leading academic medical centers—has now documented that greater use of these discretionary, supply-sensitive services is associated with slightly worse outcomes, poorer quality, and lower satisfaction with care (Fisher, 2003; Fisher, 2004). Moreover, physicians report that their ability to provide high-quality care is lower in the higher-intensity regions, both in terms of the continuity of care with their patients and the adequacy of communication among physicians (Sirovich, 2006).

What’s going on?

Variations in the intensity of care have several causes, including limited evidence, optimistic assumptions, and unmanaged supply of hospital beds and physicians. Evidence-based medicine focuses primarily on the “what” of treatment (what drug, which surgical procedure) rather than the “how” (by whom, where delivered, over how many visits). And the differences in intensity reflect differences in “how” patients are treated. For example, current research provides no guidance on whether a patient with well-controlled hypertension should be seen once per month (as is the case for patients cared for by some physicians in high-spending regions) or once every 6 to 12 months (as in the lowest-intensity regions). Nor does evidence guide clinical decisions about when to hospitalize a patient for worsening heart failure or refer a patient to a gastroenterologist for symptoms of reflux. In the absence of strong evidence, other factors drive clinical decisions—including the widely held assumption that more medical care means better care. Although this assumption is reinforced by fee-for-service payment and physician fears of malpractice—these factors do not vary substantially across regions. What varies across U.S. regions and health care organizations is the supply of medical resources relative to the size of the population served. Higher-intensity states, regions, and hospitals

have many more physicians and acute care hospital beds on a per-capita basis than lower-intensity states—and the current payment system ensures that they stay busy.

Why worse outcomes and quality? The reasons why higher spending would be associated with worse quality and outcomes remains an important topic of research, but the most likely possibilities seem to be that higher-intensity systems are much more likely to have many different physicians involved in a patient's care (making communication more difficult) and that the additional time spent in the hospital and ICU in higher-intensity systems subjects patients to an increased risk of hospital-acquired injuries and infections that exceeds—on average—the benefit of a greater chance of rescue if aggressive care is needed. And at the end of life, many patients would prefer a more conservative approach to care, if given the choice (Pritchard, 1998).

What needs to be done?

Improving care for patients with serious chronic illness will require efforts on the part of both clinicians and policy makers. The Dartmouth Atlas Project has called for policy reforms that include improving the scientific basis of clinical practice (especially in those with serious chronic illness), promoting the growth of organized, accountable care (bringing physicians together to establish effective coordination and to be jointly accountable for quality and costs); and reform of the payment system to reward better coordination and better performance.

But there are also numerous clinical strategies designed to improve care for seriously ill patients. These include the widespread implementation of effective palliative care, ensuring that hospice care is both broadly available and offered in a timely fashion, and more comprehensive implementation of advanced care planning and systems—such as the Physician Orders for Life-Sustaining Treatments (POLST)—that ensure adherence with patients' and families' preferences within the current delivery system. The challenge for clinicians is to work toward their more widespread implementation.

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Note: To download a full copy of our new report—The Dartmouth Atlas of Health Care 2008, *Tracking the Care of Patients with Severe Chronic Illness*—go to www.dartmouthatlas.org. The executive summary may also be downloaded at that address.

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