
Commentary: Hospital Economics of the Hospitalist

Twenty-First Century Hospitals: Intensification Increases

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As America's hospitals enter a new millennium, there is every indication that they will continue what seems like an interminable march toward increasing intensification and ever higher per day costs. The paper by Gregory, Baigelman, and Wilson convincingly demonstrates intensification forces at play in the context of the hospitalist movement, a contemporary response to persistent pressures in hospitals to seek ever greater efficiencies in patient throughput.

Prospective payment, either in the context of traditional per member, per month prepayment seen in health maintenance organizations, or through per case hospital reimbursement as exemplified by the Medicare prospective per case payment system based on diagnosis related groups (DRG), creates incentives for hospitals to reduce length of stay and thereby increase throughput. The two most profound economic forces affecting hospitals in the last quarter of the twentieth century were the implementation of the Medicare prospective DRG-based payment system for hospital admissions and the prediction of widespread health care reform based on managed care (presumably prospective payment) in the early 1990s. Over a relatively brief space of less than two decades, hospitals have been transformed into high intensity, fast moving, patient care factories where throughput, measured predominantly as length of stay per admission, is an all-pervasive management goal. One response to these changes in most large communities was a fairly dramatic decrease in the number of beds and consolidation and closures of hospitals.

Gregory's paper demonstrates that even on a general medicine service with a relatively low DRG weight and short length of stay, mean length of stay was reduced by 37 percent, while total cost per day increased by 24 percent. These results are consistent with published literature (Auerbach et al. 2002; Meltzer et al. 2002; Wachter and Goldman 2002) describing the effects of

hospitalists, and likely account for the robustness and attractiveness of this newly emerging specialty.

The most interesting aspect of the paper, however, was the economic analysis, and, in particular, use of a queuing model of patient flow (Green and Nguyen 2001) to understand the effect of hospitalists (or as the authors' note, any effort to increase throughput) on economic performance. The analysis is from a hospital perspective. In a word, hospitals are economically advantaged if throughput increases when there is little, if any, per diem reimbursement. Their economic advantage becomes greater when there is more demand for inpatient service and the newly available patient days are quickly filled with new patients using the services of that hospital. As hospital costs per day increase and, assuming continuous downward pressure on reimbursement by payers, hospitals also face increasing pressures to operate at full or nearly full capacity to generate an operating margin, which in turn is used to upgrade, replace, or purchase new technology and plant. In fact, the greater Boston area market (the setting of the Gregory hospitalist study) has recently been characterized by hospitals losing money in spite of operating at levels conventionally considered full capacity.

It is highly likely that current market forces will continue to make hospitalists attractive as long as hospitals are incentivized to increase throughput, especially if demand remains high. The 1990s witnessed an absolute decline in the number of hospitals and available hospital beds (American Hospital Association 2001). However, the utilization controls exerted by managed care have relaxed and as the nation's primary care system continues to unravel, avoidable hospitalizations are increasing (Billings, Anderson, and Newman 1996; Kozak, Hall, and Owings 2001), as is emergency department utilization (Centers for Disease Control 2002). Thus, there now appears to be a shortage of beds in some communities and hospitals are opening new beds or building new facilities—hoping as well that there will be nurses and others to staff those beds.

One likely consequence of these trends will be continuously increasing overall costs—absent any efforts to improve access to general medical care and, in particular, continuity of care. The combination of continued upward pressure on per day costs from efforts to improve throughput by higher utilization of inputs (mostly more rapid and intensive deployment of

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diagnostic tests and therapeutic procedures), along with the need to operate at full capacity, likely will be accompanied by pressures to add to hospital capacity to cover higher fixed costs. As hospital capacity increases, hospitals may then need to develop programs to increase demand to stay full. Absent countervailing forces, these trends will increase overall costs. At the same time, the increased intensity of care may have unintended adverse effects. The subjective experience for patients who are hospitalized could become increasingly hectic and stressful. Increased complexity and intensity could lead to even more unsafe hospital conditions and an environment more conducive to medical errors. The attractiveness of nursing and other hospital-based jobs (for example, resident physicians in training) could further decline as the opportunity to have meaningful relationships with patients lessens. If we are not mindful, the “production” function could overwhelm the traditional “caring” function so long exemplified by mission-driven, caring hospital staff.

I also predict that alternatives to inpatient hospitalization will become increasingly attractive—both financially and experientially. It is interesting to note that the median length of stay for the hospitalist service in Gregory’s study was one day (mean = 2.19 days). This suggests that 50 percent or more of patients might be eligible for care in a “home hospital” or less intensive observation unit. The rising intensity of care may also increase financial attractiveness of efforts to provide more effective coordination of care and especially chronic disease management (Bodenheimer, Wagner, and Grumbach 2002a; Bodenheimer, Wagner, and Grumbach 2002b).

Finally, if hospitalization rates do increase along with increased throughput, discharges must also increase, and this will place intense pressures to expand ready availability of after-hospital care. More than 50 percent of patients discharged in Gregory’s study received some sort of postdischarge care with home care being the most common service. This segment of the provider industry has recently been under intense pressure in the wake of the Balanced Budget Amendment reimbursement changes.

Health services research as exemplified in the paper by Gregory and colleagues, employing models like the queuing model of patient flow, can provide unique insights into phenomena like a hospitalist service and other efforts to improve throughput at one limited, albeit vital and high-cost point in health care delivery. We also need research and models to develop insight into efforts to improve performance of health services delivery in primary and preventive care and throughout the continuum of care (Larson 2002; Rosenblatt et al. 2000). It is conceivable (indeed likely) that *over* intensification of efforts in one segment could lead to undesirable effects, including bottlenecks

elsewhere in the system (Goldratt 1990; Goldratt 1992). The hospital will likely always be a highly visible, critical site of health care services. It will be interesting to see how intensive the hospital of the twenty-first century will become and what forces will shape evolution of the hospital of the future.

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