



Zero to 50,000 — The 20th Anniversary of the Hospitalist

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Twenty years ago, we described the emergence of a new type of specialist that we called a “hospitalist.”¹ Since then, the number of hospitalists has grown from a few hundred to more than

50,000 (see graph) — making this new field substantially larger than any subspecialty of internal medicine (the largest of which is cardiology, with 22,000 physicians), about the same size as pediatrics (55,000), and in fact larger than any specialty except general internal medicine (109,000) and family medicine (107,000). Approximately 75% of U.S. hospitals, including all highly ranked academic health centers, now have hospitalists. The field’s rapid growth has both reflected and contributed to the evolution of clinical practice over the past two decades.

In the mid-1990s, the combination of managed care for privately insured patients and Medicare’s diagnosis-related-group–based payment system for inpatients pushed hospitals to manage care more ef-

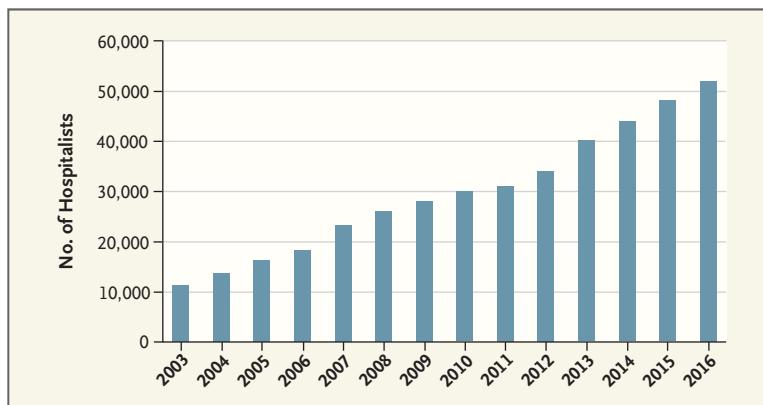
ficiently without sacrificing quality or alienating patients. Hospitalists emerged as one potential solution. Within a few years, evidence showed that using hospitalists could result in reduced costs, shortened lengths of stay, and preserved or even enhanced quality of care and patient satisfaction^{2,3} — in essence improving the value of care. The field was off and running.

For hospital medicine to grow as quickly as it has, many stars had to align, including a viable financial framework, a pool of qualified physicians, and enough force to overcome resistance to change. Remarkably, those stars did align.

The first issue was economic. By the mid-1990s, elective medical admissions had all but disap-

peared, but emergency admissions were increasing. Acutely ill patients needed rapid attention on admission and often multiple daily visits during hospitalization, regardless of whether that disrupted the flow of physicians’ outpatient practices. Moreover, the remuneration for nonprocedural inpatient care, especially given its growing complexity, was not high enough to make physicians who had historically been responsible for such care (primary care physicians in community settings and specialist and researcher attendings in academia) feel strongly about retaining their hospital roles. So most such physicians willingly turned inpatient care over to hospitalists.

How could hospitalists, then, fashion careers out of a role that was economically unattractive to their colleagues? Once evidence of substantial cost savings had accumulated, health care organizations found it advantageous to have hospitalist programs, and most



Growth in the Number of Hospitalists in the United States, 2003–2016.

Data are from the annual survey of the American Hospital Association, which began tracking the field in 2003.

provided financial support to create appealing jobs with reasonable salaries. Thanks to the value proposition and new duty-hour limits for residents, hospitalists also increasingly became responsible for staffing nonteaching services in teaching hospitals.

The second facilitator of hospitalist growth was the very large pool of general internists in the United States, most of whom were trained predominantly in inpatient settings. Many internists, whether newly minted or experienced, found the hospitalist role attractive, particularly given growing dissatisfaction with primary care internal medicine. In contrast, the small reservoirs of general internists in countries such as Canada and Britain have hindered efforts to build inpatient programs staffed by generalists.

Third, the quality, patient-safety, and value movements and widespread implementation of electronic health records all emerged just as the hospitalist field came of age. Hospitalists' early emphasis on improving systems of care⁴ bolstered the field's credibility and fostered the development of a cadre of young physicians who would ultimately assume local and

national leadership roles. For example, the U.S. Surgeon General and the chief medical officer of the Centers for Medicare and Medicaid Services are hospitalists — an impressive validation of such a young field.

As the specialty grew in size and stature, the model spawned variations on its central theme. One obvious extension was pediatric hospitalists, who now account for approximately 10% of hospitalists. More creative variations include “hyphenated hospitalists,” such as surgical hospitalists (also called acute care surgeons), neuro-hospitalists, and obstetrical hospitalists. Medical hospitalists also often comanage care with surgeons or medical subspecialists, thereby reducing costs and allowing those specialists to concentrate on procedural tasks.⁵ Finally, financial penalties for readmissions have led many hospitalists to staff post-acute care facilities to improve coordination with colleagues at acute care hospitals.

Despite the hospitalist field's unprecedented growth, there have been challenges. The model is based on the premise that the benefits of inpatient specialization and full-time hospital pres-

ence outweigh the disadvantages of a purposeful discontinuity of care. Although hospitalists have been leaders in developing systems (e.g., handoff protocols and post-discharge phone calls to patients) to mitigate harm from discontinuity, it remains the model's Achilles' heel.

Many hospitalists have added value as local leaders in quality improvement, safety, and innovation, but some have functioned more as shift workers. For example, many community hospitalists have a 7-days-on, 7-days-off schedule that focuses mainly on high-volume clinical work and sends an unspoken but clear message that, at the end of an intensive clinical “on” stint, one is “off” and uninvolved. Our impression is that hospitalist programs provide more value when hospitalists' inpatient assignments (clinical “systole”) are complemented by a systems-oriented “diastole,” during which clinical activity is limited but they contribute to key institutional programs. Productive diastole is more likely when hospitalists have strong leadership, a robust professional-development curriculum, and a mutual hospital-hospitalist commitment to adding value during specified and structured nonclinical time.

Another problematic, though not unanticipated, consequence of the use of hospitalists has been a diminished role for specialists and researchers on teaching services. Because specialists are far less likely than they once were to serve as inpatient attendings, trainees have less contact with them and less exposure to basic and translational science.

Finally, the few academic hospitalist groups that have developed substantial research programs generally emphasize the imple-

mentation of quality- and systems-related initiatives. Hospitalists have been slow to pursue substantial inquiry into discovery related to the common inpatient diseases they see or to lead multicenter trials of new diagnostic or therapeutic approaches. This deficiency limits hospitalists' credibility in academia and the advancement of the field.

Although we continue to believe that the hospitalist model is the best guarantor of high-quality, efficient inpatient care, it's clear that today's pressures require innovative approaches around this core. In addition to following patients in post-acute care facilities, another modified approach is to have a subgroup of hospitalists function as "comprehensivist" physicians who care for a small panel of the highest-risk, most frequently admitted outpatients and remain involved when hospitalization is required. This model aims to blend the advantages of the hospitalist model for the vast majority (>95%) of inpatients with the potential advantages of continuity for a small group of patients who are admitted repeatedly.

Hospitalist programs are innovating in other ways as well. Many are developing early-warning protocols in which electronic health record data are used to identify

patients who are at risk for problems such as sepsis or falls. Others are implementing bedside ultrasonography for procedures and diagnosis, pioneering methods of making rounds more patient- and family-centric, implementing unit-based leadership teams, or applying process-improvement approaches such as the Toyota Production System to inpatient care.

Many academic programs are also experimenting with new ways of reconnecting specialists and scientists with trainees. Some have begun offering focused basic-science training to hospitalists, others have developed molecular medicine consult services, and still others have instituted dual attending programs, with a consultative teaching specialist joining a more hands-on teaching hospitalist. Such innovations are welcome and should be studied. In fact, the field's greatest risk may well be complacency — failing to embrace the kinds of transformation and disruption that led to its birth, or being slow to address the inevitable side effects of even the best innovation.

When we described the hospitalist concept 20 years ago, we argued that it would become an important part of the health care landscape. Yet we couldn't have predicted the growth and influ-

ence it has achieved. Today, hospital medicine is a respected field whose greatest legacies may be improvement of care and efficiency, injection of systems thinking into physician practice, and the vivid demonstration of our health care system's capacity for massive change under the right conditions.

Disclosure forms provided by the authors are available at NEJM.org.

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Hospitalists and the Decline of Comprehensive Care

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Medical specialization dates back at least to the time of Galen. For most of medicine's history, however, the boundaries of medical fields have been based on factors such as patient age (pediatrics and geriatrics), ana-

tomical and physiological systems (ophthalmology and gastroenterology), and the physician's toolset (radiology and surgery). Hospital medicine, by contrast, is defined by the location in which care is delivered. Whether such

delineation is a good or bad sign for physicians, patients, hospitals, and society hinges on how we understand the interests and aspirations of each of these groups.

The hospitalist model has provided such putative benefits as