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The hospitalist: Will inpatient specialists improve care?

ABSTRACT

The number of hospitalists—ie, practitioners who specialize in the care of hospital inpatients—is growing rapidly in the United States. In part a response to managed care's push for better health outcomes with a minimum waste of time, effort, and money, this new specialty has its own national organization, affiliated with the American College of Physicians. Challenges to hospitalists include minimizing the use of consultations and unnecessary laboratory tests for inpatient care, and ensuring continuity of care once patients leave the hospital.

KEY POINTS

The term "hospitalist" was introduced in 1996; other names include inpatient physician, admitting doctor, clinical consultant, hospital-based internist, and hospital-based specialist.

Hospitalists associated with training programs for house staff can provide closer inpatient supervision and, thus, may be more valuable as educators.

With the arrival of hospitalists, some primary care physicians fear they will lose their hospital-based skills.

Hospitalists must enlist the help of primary care physicians, utilization planners, physical and occupational therapists, pharmacists, medical social workers, home health care agencies, and subacute or long-term care agencies to develop a final care plan that promotes the best care for the patient.

"It is almost unnecessary to remark that the public, in which we live and move, has not been slow to recognize the advantage of a division of labour in the field of medicine....how comforting to the general practitioner is the wise counsel of the specialist."[1]

—SIR WILLIAM OSLER

THE NUMBER of medical specialists has grown tremendously since Osler wrote those lines, and this growth has contributed to the rising cost of modern health care.[2] The rise in cost has led to the birth of managed care, with its renewed emphasis on primary care and away from specialization.[3]

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Ironically, the same forces that have discouraged specialization are also supporting the growth of a new specialty—hospital-based or inpatient medicine.[4] The practitioner of this new specialty is known by different names: hospitalist, inpatient physician, admitting doctor, clinical consultant, hospital-based internist, and hospital-based specialist.

But whatever the name, the practitioner of inpatient medicine has found a role in the changing environment of modern health care.

AMERICAN MEDICINE: EXPENSIVE AND INEFFICIENT

In 1995, Americans spent $988 billion on health care, more than any other country in the world. From 1980 to 1995, overall health care expenditures quadrupled, while hospital charges, the largest single component of health care costs, increased at approximately twice the rate of inflation.[2–5]

Unfortunately, statistics on medical out-

TABLE 1

Mission statement of the National Association of Inpatient Physicians

To promote high-quality and cost-effective care of the hospitalized patient

To uphold the highest standards of professionalism among hospitalists and other providers of inpatient care

To educate physicians, other health care professionals, and the public as to the role of hospitalists in health care and society in general

To support investigation in areas related to inpatient medicine

To educate physicians and other health care professionals in the field of inpatient medicine

To serve the needs of our members in their dealings with other physicians, the health care establishment, and the public

comes suggest that Americans are getting a less than optimal return on their investment. The life expectancy for American men and women lags far behind that of other industrialized nations that spend a fraction of the cost. In infant mortality, the United States remains only 19th best, despite health care expenditures reaching 14% of our gross national product.[6]

Nearly half of working Americans are in HMOs

These trends have supported the growth of managed care and have spurred debate on governmental health care reform. While no significant legislation on health care reform has been enacted to date, the organization of health care has changed rapidly, driven by private market forces. The salient feature of this change: individuals and families are enrolling in managed care plans in greater numbers. By 1994, over 50 million Americans belonged to a managed care plan—nearly 50% of the employed population by current estimates.[7]

The key concept of managed care is that physicians are expected to produce better health outcomes while spending less time, effort, and money. As a result, the health care community has taken a hard look at ways to care for inpatients and outpatients more efficiently.

WHAT IS A HOSPITALIST?

Although hospital-based medicine has been practiced in Great Britain and Canada for years, it has resurfaced in the United States only recently. First described by Wachter and Goldman[8] in 1996, hospitalists are specialists in inpatient medicine, "responsible for managing the care of hospitalized patients in the same way that primary care physicians are responsible for managing the care of outpatients." Their goals are outlined in the mission statement of the recently established National Association of Inpatient Physicians (NAIP) (TABLE 1).[8–10]

Physicians embrace the concept because they hope to attain a more predictable lifestyle and greater hospital expertise. Accelerating its growth is pressure from managed care organizations,[11] which hope to use it to attain the ultimate goal of American health care reform—high-value care. Admittedly, value is hard to measure; one equation defines it as quality × patient satisfaction / cost.

BETTER CARE FOR SICKER PATIENTS

Today's hospital patients are sicker than they were before the introduction of prospective payment and diagnosis-related groups,[2] and sicker patients created the need for hospitalists. Manthous et al[12] recently reported that, in a medical intensive care unit, the mortality rate and the length of stay declined after a full-time director of intensive care was hired. Proponents of hospital-based medicine suggest that patients who require an intermediate level of care could also benefit from having hospitalists at hand.

Hospitalists may be able to provide better care than office-based physicians by working more efficiently. They can make rounds several times a day and thus can reassess their patients and treatment plans more frequently, responding to changes in the condition of their patients or to abnormal test results more quickly than their primary care counterparts, who spend most of the day in the office.

Hospital-based physicians may have additional advantages:

- They are in a position to lead outcomes-based research and graduate medical education.
- At academic centers, they have the resources and patient volume to produce and evaluate practice guidelines and to assess utilization practices.

- As teachers, they can supervise house staff closely. With their technical experience, they can teach inpatient bedside procedures.
- They can be involved more closely in the processes of quality improvement and utilization review.
- Patients and families may be more satisfied with hospitalists, who are more available at the bedside, and more experienced in the problems of hospitalized patients.

WILL CONTINUITY OF CARE SUFFER?

Some critics point out that without a commitment to communication between the inpatient and outpatient health care team, there will be no continuity of care when the patient leaves the hospital.

In Germany's hospitalist model, unlike those of other Western European countries, inpatient and outpatient services are almost completely uncoupled, with very little communication between hospitalists and ambulatory care physicians. German hospital physicians often duplicate tests already done in the outpatient department, even when tests are obtained on the same day. Hospital length of stay in Germany is among the longest in Europe, possibly due to the inability of hospital-based physicians to provide adequate follow-up care after patients are discharged.[13]

This example underscores that a lack of communication leads to inefficiency and can worsen patient care and health outcomes. Ideally, hospitalized patients should return to their outpatient physicians with a final care plan that the hospitalist has outlined and communicated directly to the primary care provider. In this task, hospitalists must enlist the help of primary care physicians, utilization planners, physical and occupational therapists, pharmacists, medical social workers, home health care agencies, and subacute or long-term care agencies.[14]

Other criticisms: Patients may feel less satisfied with care rendered by "a perfect stranger." Some specialists fear that hospitalists will order fewer consultations and may ultimately affect their bottom line.[4,15] Primary care physicians may be uncomfortable relying on unfamiliar hospitalists assigned by managed care organizations. And other primary care physicians fear they will lose their hospital-based skills.[16]

While these concerns have merit, more research is needed to fully assess any negative impact of using hospitalists.

ANECDOTAL SUCCESSES OF USING HOSPITAL-BASED PHYSICIANS

Hard data on the efficacy of the hospital-based physician model are not yet available. Nevertheless, there are clues to its potential success. Most Western European countries use hospitalists, and, despite inefficiencies in communication, they achieve nearly universal health care coverage, with outcomes comparable to our own, while spending a considerably lower percentage of the gross domestic product on health care.[17]

In the United States, individual practice groups and hospitals are also reporting success with using hospitalists. For example:

- Columbia North Florida Regional Medical Center in Gainesville has four hospital-based internists on site and boasts one of the lowest average lengths of stay and costs per case in their area.[18]
- Park Nicollet Clinic in Minneapolis began using full-time hospitalists 3 years ago. Since then the average stay has dropped a half-day, and the cost per stay has decreased by 20%, with no apparent decline in patient satisfaction.[19,20]
- Kaiser Permanente's Colorado region introduced a hospitalist model for internal medicine at St. Joseph Hospital in Denver and evaluated the use of consultants on their inpatients: the number of doctors per patient hospitalization was cut by 50% during the first half of 1995.[18]
- At Long Island Jewish Medical center, the hospitalist program is thought to be responsible for shaving almost 1 day off the average length of stay.[4]

Europeans spend less and are just as healthy

IS SUCCESS DUE TO THE MODEL OR THE PRACTITIONER?

One question that remains unanswered is whether the success of the hospitalist model is due to the model itself, or due to the individual practitioners within the model. Because

TABLE 2

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they treat severely ill patients every day, hospitalists may have a higher "comfort level" and, thus, may order fewer consultations and unnecessary laboratory tests. However, if that comfort level does not exist, the advantages may not either. Physicians with more training and experience in inpatient care are likely to be more familiar with coordinated care and hospital-based algorithms, thus optimizing length of stay and ultimately decreasing costs.

Conversely, a hospitalist without sufficient knowledge and skill is unlikely to realize the same cost savings. As the trend toward using hospitalists continues, decision-makers must consider the credentials and education of the hospital-based physician and their effect on the efficiency of the hospitalist model.[21]

Will patients be less satisfied with care rendered by a "stranger"

HOSPITALISTS ARE HERE TO STAY

On a national level, the new specialty of hospital-based medicine is growing rapidly. The NAIP (TABLE 2) is now an affiliate of the American College of Physicians. A national policy conference on the hospitalist movement was held in December 1997, and more than 500 attended. More recently, the NAIP held its first national meeting in San Diego and is commencing a formal membership drive.

We believe the specialty of hospital-based medicine will continue to evolve and adapt to the changing health care landscape. Key issues that need to be further addressed are how to coordinate inpatient and outpatient care, promote communication among team members, and assure patient satisfaction. Evaluative data from high-quality clinical research are needed. Ultimately, we must continually strive to promote high-quality, cost-effective care of the hospitalized patient. Whether or not hospital-based medicine is truly a new specialty, it is interesting to note that Osler wrote a century ago:

"There are in truth no specialties in medicine, since to know fully many of the most important diseases a man must be familiar with their manifestations in many organs."[1]

REFERENCES

1. **Osler W.** Counsels and ideals. Cambridge: The Riverside Press; 1906.
2. **Coddington DC.** The crisis in health care. San Francisco: Jossey-Bass; 1990:19–128.
3. **Baldor RA.** Managed care made simple. Cambridge, MA: Blackwell Science 1996:23.
4. **United Health Care.** Hospitalists manage inpatient care. Dayton, OH: United Health Care of Ohio; July–August 1997.
5. **Warshawsky MJ.** Projections of health care expenditures as a share of the GDP: actuarial and macroeconomic approaches. Health Ser Res 1994; 29:293–313.
6. **Wachter RM.** Rationing health care: preparing for a new era. South Med J 1995; 88:25–31.
7. **Lewsey DM, Smith SR.** Survival of family medicine in a corporate health care environment: lessons from the United Kingdom. J Fam Pract 1996; 42:409–415.
8. **Wachter RM, Goldman L.** The emerging role of "hospitalists" in the American health care system. N Engl J Med 1996; 335:514–516.
9. **Nelson JR, Whitcomb WF.** Introduction. The Hospitalist. Newsletter of the National Association of Inpatient Physicians. 1997; 1(2):1.
10. **Goldman L.** The academic health care system: preserving the missions as the paradigm shifts. JAMA 1995; 273:1549–1552.
11. **Wiebe C.** Physicians turn to hospital practice in new "specialty." American Medical News 1997; 40(33):1,47–48.
12. **Manthous CA.** Effects of a medical intensivist on patient care in a community teaching hospital. Mayo Clin Proc 1997; 72:391–399.
13. **Jackson JL.** The German health system: lessons for reform in the United States. Arch Intern Med 1997; 157:155–160.
14. **Rovzar MA.** The many roles of the hospital-based physician. Hosp Pract 1997; 5:201–202.
15. **Smith MI, Bellamy P, Tillisch J.** The role of "hospitalists" in the health care system (letter). N Engl J Med 1997; 336:445.
16. **Gesensway D.** Internists in the hospital only. ACP Observer 1997; 17(5):1–17.
17. **Jackson JL.** The international experience with hospitalists. The Hospitalist: The Newsletter of The National Association of Inpatient Physicians 1997; 1(2):2.
18. **Moore J.** The inpatient's best friend. Modern Healthcare 1997; 27(5):54–60.
19. **Speer T.** The balancing breed: is it time for a new class of inpatient specialists? Hospitals & Health Networks 1997; 71(3):44–46.
20. **Terry K.** Discharging primary care doctors from hospital rounds. Med Econ 1996; 73(22): 65–81.
21. **Gipe B.** The original hospitalists. Modern Healthcare 1997; 27(17): 25.

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