HOSPITALISTS:

Leading the Way to More Effective, Higher Quality Health Care

shm
Society of Hospital Medicine

10th
CELEBRATING
TEN YEARS

INTRODUCTION

Hospital inpatients are sicker today than they were in past decades and treatment regimens are more technologically complex than ever before. These realities, combined with pressures on hospitals to control costs, increase efficiency, improve patient outcomes and reduce medical errors are changing the nature of inpatient care. One strategy that is increasingly being used to adapt to these changes is the establishment of hospital medicine programs, which feature physicians who are called "hospitalists."[1,2] Hospitalists are distinct from other physicians in that they do not have an office-based practice but instead practice full-time within an institutional setting. In 2004, nearly 13,000 practicing hospitalists served as the attending physicians for about 5.4 million hospitalized patients in the United States.

[3] The Society of Hospital Medicine (SHM) has prepared this paper to introduce policymakers to hospitalists and their role in the U.S. health care system.[4] The paper is intended to help policymakers adopt policies and implement programs that recognize the value that hospitalists bring to the delivery of healthcare.

Following a brief overview of the evolution of the field of hospital medicine,[5] we provide demographic information on hospitalists, and explore their practice models, education and training. We examine the value hospitalists bring to health care and conclude with policy recommendations that could further define the value of hospitalists in improving the delivery of healthcare.

OVERVIEW

Hospitalists are physicians whose primary professional focus is the general medical care of hospitalized patients. They may engage in clinical care, teaching, research or leadership in the field of general hospital medicine. Their typical patients are frail, elderly and medically complex, with chronic diseases such as emphysema, congestive heart failure, diabetes and kidney disease. Pediatric hospitalists provide similar care to hospitalized children.

Because hospitalists work routinely in an inpatient setting, they have enhanced knowledge of hospital operating procedures, greater familiarity with hospital staff and increased accessibility to patients. This routinization enhances their clinical expertise and enables them to recognize and appropriately treat the many medically complex patients who are admitted to the hospital.[6] Their consistent presence in the hospital ensures their ability to see patients rapidly and repeatedly.

As the value of hospitalists becomes more widely recognized, their clinical role is evolving as are the sites in which they practice. Hospitalists are increasingly teaming with hospital staff and subspecialists to care for frail, medically complicated patients. For example, hospitalists often collaborate with intensivists, who are in increasingly short supply, to allow them to focus on the sickest patients in the hospital intensive care units (ICUs).[7] They are also leaders in their institutions in quality improvement and patient safety initiatives.

Evidence is building that testifies to hospitalists' ability to better manage hospital resources and in the process,

lower average lengths of stay and reduce healthcare expenditures on hospitalized patients without adversely impacting outcomes. As discussed below, there is also increasing evidence that hospitalists actually improve patient outcomes.

Hospitalists also benefit Medicare and Medicaid patients as well as the programs themselves. Hospitalists bring direct value to these public programs by assuring appropriate inpatient resource utilization by reducing readmission rates, improving care efficiencies, applying systemic evidence-based care protocols and eliminating unnecessary acute care admissions by directing patients to more appropriate non-acute care services. Hospitalists also bring indirect value to these programs by helping to constrain the costs of inpatient care while improving the safety, effectiveness and quality of care provided to Medicare and Medicaid patients.

THE EVOLUTION OF HOSPITAL MEDICINE

In the mid-1970s, the average generalist physician had about 10 patients in the hospital, each staying for an average of 8 to10 days. Consequently, these physicians spent up to 30 to 40 percent of their day visiting inpatients.[8] When added to the demands of an office-based practice, physician visited their hospitalized patients only once per day.

As medical practice became more specialized and increasingly dependent on complex technology, caring for hospitalized patients changed. Inpatients became sicker, demanding more physician presence and expertise. This was driven by a variety of factors, including the aging of the population, medical advances that allowed patients with chronic diseases to live longer and the shifting of less complex cases to the outpatient setting.

At the same time, healthcare costs continued to escalate and payers moved to constrain reimbursement. Led by Medicare, payers developed fixed price payment systems that created incentives to increase patient turnover. Such payment systems reimbursed hospitals based on the average cost of the discharge diagnosis, rather than the actual cost of care. The move to fixed price payment also drove hospitals to become more efficient. Hospitals reduced excess capacity, lowered the ratio of nurses and other staff to patients and eliminated unprofitable services. They shifted many lucrative procedures to the ambulatory setting, taking with them medically uncomplicated patients who would have previously been hospitalized. Hospitals also began to reduce patient lengths of stay. The remaining hospitalized patients were sicker, turned over faster and required a much more hands-on and intensive model of care.

In the 1990s, a new model of acute inpatient care emerged in the form of hospital medicine practiced by hospitalists. The underlying concept was that a small number of inpatient-based physicians would improve the quality and coordination of care while controlling healthcare costs. As the success of these hospital medicine programs became more widely known, hospitalists began to proliferate rapidly throughout the healthcare system – from large academic health centers to small rural hospitals.[9] In the mid-1990s, there were less than 1,000 hospitalists in the United States. By 2004, nearly 13,000 hospitalists were practicing in almost 1,800 hospitals or 37 percent of all acute care hospitals in the United States.[10] Projections indicate that by 2010, as

many as 30,000 hospitalists may practice in this country.[11] Hospital medicine is the fastest growing medical specialty in the history of medicine.[12]

Hospital medicine is unusual because it is organized around the site of care, rather than a particular organ or disease.[13] (Attachment A, "Hospitalist Care: The Patient's Perspective" provides insights into this medical specialty.)

Virtually all of the country's leading teaching hospitals have embraced hospital medicine, including the Mayo and Cleveland Clinics, Harvard University and the Universities of California (San Francisco), Chicago, Pennsylvania and Michigan.[14] In addition, many of the nation's largest managed care programs – including Humana, Kaiser, Aetna, PacifiCare, United Health Care, CIGNA and others – use hospital medicine programs in their in-group model plans.

According to data from the 2003 and 2004 Annual Surveys of the American Hospital Association (AHA), certain types of hospitals are more likely to have hospitalists. For example, 63 percent of hospitals with over 200 beds and 59 percent of teaching hospitals have hospital medicine programs. Nonetheless, hospitalists are beginning to impact the full spectrum of hospitals in the U.S. AHA data indicates that over 1,000 hospitalists practice at the country's 2,100 rural hospitals, many of them with under 50 beds Furthermore, the AHA Surveys indicate that the number of hospitals with hospitalists grew 17 percent between 2003 and 2004.

Initially, hospitalists were employed as members of multi-specialty group practices. Over the past decade, hospitalists have shifted to hospitalist-only practices. This seems to reflect that hospital medicine has differentiated to the point that the unique needs of hospitalists are best met by stand-alone practices. Recently, there has been a significant increase surge in the numbers of hospitalists at academic medical centers. Table one highlights the basic hospitalist program models.

HOSPITALIST PROGRAM BY MODEL/TYPE	PERCENT OF HOSPITALISTS EMPLOYED/CONTRACTED
Hospital/Hospital Corporation	34%
Hospitalist-Only Group	31%
Medical School/Academic Program	20%
Single Specialty/Multi-specialty Group	16%

TABLE 1. Hospitalist Program Models, 2005

Hospitalists come from several medical disciplines, but general internal medicine (75 percent) is by far the most common.[15] This reflects the fact that residency training in internal medicine typically focuses on the care of acutely ill hospitalized patients, which leaves graduates well-suited to practice as hospitalists.

The hospitalist model initially raised fears that patient handoffs between community physicians and hospital-

MEDICAL DISCIPLINE	PERCENT OF HOSPITALISTS
General Internal Medicine	75%
Internal Medicine Subspecialties	4%
TOTAL INTERNAL MEDICINE	79%
Pediatric	11 %
Pediatric Subspecialties	<1
Medicine-Pediatrics	3%
Family Practice	3%
Nurse Practitioner/Physician Assistant	3%

TABLE 2. Specialty of Hospitalists, 2005

ists would jeopardize patient care as well as the relationship between patients and their primary care providers. These fears have largely been allayed for several reasons. First, the average primary care physician now may have one to two hospitalized patients, each staying for 3 to 6 days, which makes hospital visits an inefficient use of time. Second, it is becoming increasingly difficult for office-based physicians to simultaneously juggle busy office practices and medically complex inpatients. Third, the financial incentives for physicians to treat inpatients have also declined.[16] In the face of declining reimbursement rates that have failed to keep pace with rising practice costs, many primary care physicians have shifted focus to office-based practice where they can work more efficiently.

A study conducted by the Mayo Clinic in 2004 gives valuable insights into how specialists perceive hospitalists. The study found that hospitalists and orthopedic surgeons, working together in teams, produced better postoperative patient outcomes when compared with traditional orthopedic care. In addition, the study found that orthopedic surgeons and nurses preferred the hospitalist-orthopedic co-management model over the orthopedist-only model.[17]

At the federal level, hospitalists have and continue to contribute to efforts to improve quality of care and patient safety. For instance, in early 2005, the Agency for Healthcare Research and Quality (AHRQ),[18] a part of the Department of Health and Human Services, launched the nation's foremost patient safety website (http://psnet.ahrq.gov) designed by six leading hospitalists to help healthcare providers, administrators and consumers learn about patient safety and how to prevent medical errors. The site was developed by the same team of researchers and hospitalists that developed AHRQ's popular Web M&M online patient safety journal, which is also accessible on PSNet. As inpatient experts, hospitalists are uniquely qualified to integrate complex hospital systems and maximize efforts to enhance patient safety. Medical errors occur most often during transition times when clinical information is most likely to be lost and hospitalists spend a significant portion of their time managing and improving these transitions.[19]

Hospitals also rely on hospitalists to develop and roll out new information technology such as computerized physician order entry. Hospitalists have unique insights into how best to deploy and improve health information systems within their hospitals by virtue of the fact that they work all across the hospital and are intimately involved in systemic quality and efficiency improvement efforts.

Compensation. Like other physicians, hospitalists are compensated under a wide range of financial arrangements including salary, fee-for-service and capitation. For fee-for-service Medicare patients, hospitalists are reimbursed like other physicians under the Medicare fee schedule for physician services, which bases payment on the relative values for physician work, practice expense and malpractice expense and a national conversion factor that is updated on an annual basis. Compensation arrangements can also include performance incentives. In 2005, the median total compensation for hospitalists was $169,000.[15]

Collections from professional fees generally do not cover hospitalists' salaries because health insurance plans, both private and public, do not recognize or reimburse many of the services provided by hospitalists. Such non-reimbursable services include seeing a patient several times in a single day, coordinating care and meeting with patients' families. As a result, the average hospitalist requires about $50,000 - $60,000 of annual salary support.[15] Hospitalists typically depend on the hospital for these additional funds, and are constantly challenged to demonstrate the financial value of their services.

THE EDUCATION AND TRAINING OF HOSPITALISTS

As previously noted, hospitalists tend to be general internists, pediatricians and family physicians who dedicate their careers to the practice of inpatient medicine. In the course of this commitment, they sharpen their inpatient medicine knowledge and skills through experience. Hospital medicine has a growing research base, specific educational content, certified continuing medical education (CME) courses and an active and growing professional society. In January of 2006, SHM launched *The Journal of Hospital Medicine*, the first peer-reviewed journal by and for hospitalists. In the first edition, SHM unveiled *The Core Competencies in Hospital Medicine*, which outlined the unique skills that define a hospitalist.[20]

As an emerging specialty, there is no formal board certification for hospital medicine, yet as the discipline matures, it is natural to expect that it will evolve into a distinct medical specialty. Several medical schools have recently added hospitalist tracks as part of their residency training programs. The University of Colorado's program, for example, started in 2004. In addition to focusing on medical conditions pertinent to the practice of hospital medicine, residents study how the hospital functions as a system and learn to team with physicians, pharmacists, nurses and hospital executives to improve the quality and efficiency of inpatient care.

IMPACT – THE VALUE PROPOSITION

The proliferation of hospitalist programs across the nation reflects an assessment by hospitals and their medical staffs that hospitalists bring tangible benefits. There are a number of reasons why these institutions and their physicians have come to rely on hospitalists. Included among them are:

- **Promoting patient safety and quality of care –** Hospitalists are uniquely knowledgeable about hospital operations, including the necessity of integrating and coordinating services provided by different departments. For example, hospitalists monitor the prescribing and distribution of drugs, work with hospital formulary committees and direct medication error reduction projects. Hospitalists are also pioneering innovative discharge planning protocols to ensure smooth transitions to necessary post-acute services.

  Studies measuring the impact of hospitalists indicate that hospitalist programs decrease mortality, length of stay and re-admission rates.[21,22,23] The previously noted hospitalist/orthopedic surgeon co-management Mayo Clinic study, found 61% of patients co-managed by hospitalists and orthopedic surgeons were discharged with no complications, compared to 51.2% managed by orthopedic surgical teams alone. Approximately 30.2% of patients co-managed by hospitalists experienced minor complications, compared to 44.3% of patients managed by orthopedic surgical teams.[17]

- **Improving the efficiency of hospital operations –** Hospitalists facilitate effective patient management, decrease costs through shorter lengths of stay, reduce medical errors, decrease the number of medically unnecessary admissions and make hospitals with hospitalist programs more attractive to patients. Thus, they improve hospital financial performance without sacrificing quality or patient satisfaction. Hospitalists enhance coordination with nurses and other health professionals, improve teamwork and promote more efficient management of resources. This is why, for example, the Institute for Healthcare Improvement's (IHI) 100,000 Lives Campaign,[24] recommends that hospitalists participate in hospital Rapid Response Teams[25] to intervene in the care of deteriorating or unstable patients.

- **Caring for hospitalized patients who do not have their own physicians –** As the numbers of indigent and uninsured Americans have risen, so have the number of hospitalized patients without a physician. Hospitals have traditionally organized their medical staffs to provide on-call care for such "unassigned patients." Increasingly, hospitals cannot find physicians willing to provide this coverage. Hospitalists are increasingly filling this void. In many communities, hospitalists have become the inpatient safety net for America's uninsured and indigent medical inpatient population.

- **Providing experienced leadership –** While hospitals face an ever-mounting range of important clinical and management challenges, fewer members of their medical staffs are able or willing to lead hospital committees and play a leadership role for the medical staff. A growing number of specialists do not practice in hospitals, and many of those who do expect to be compensated for time spent on hospital business. Hospitalists are once again filling the void by assuming prominent roles in hospital and medical staff leadership. Such leadership efforts involve, for example, developing and adopting practice guidelines,

improving utilization review processes, enhancing patient satisfaction and shepherding quality improvement and patient safety initiatives. Hospitalists are frequently effective agents of change, helping to motivate hospital medical staffs to improve care delivery and patient outcomes.

- **Improving community-based physician practices –** Hospitalists enable community-based primary care physicians to operate their practices more efficiently and reduce patient waiting times for appointments. In collaboration with surgeons, hospitalists perform pre-procedural risk assessments and other tasks that increase the number of procedures that can be scheduled each day.

- **Providing immediate physician access –** Adding hospitalists to a medical staff gives the entire medical staff access to physicians who have specialized in the care of acutely ill patients. Hospitalists routinely provide rapid and experienced consultations to physicians who are not immediately available to address unanticipated changes in the condition of their hospitalized patients. They are present in the hospital to deal with changes in clinical status, provide patient and family education and counseling and improve patient satisfaction.[26] Their presence can reduce oncall time and other activities required of the medical staff and aid in recruiting and retaining of staff members.

- **Improving end- of- life care –** Hospitalists are spearheading improvements in palliative care. Such efforts hold the possibility of reducing the overuse of futile heroic measures at the end-of-life, decreasing the burden on already overstressed critical care units and improving adherence to advance medical directives.

- **Proliferating hospitalists at academic medical centers (AMCs) –** Due to shrinking numbers of housestaff and work hour restrictions, AMCs can no longer primarily rely upon housestaff to provide patient care. Hospitalists have filled this void and at many programs have become the primary inpatient educators for medical residents. According to a September 2004 report of a study supported by the National Committee for Quality Assurance (NCQA), "residents, interns and medical students consider internal medicine rotations supervised by hospitalists to be more effective and satisfying than those supervised by traditional attending physicians."[27]

  Academic hospitalists are increasingly participating in and directing research designed to improve the quality, safety and cost-effectiveness of inpatient medical care. These research efforts have identified and implemented best practices for managing medical problems such as pneumonia, heart failure and diabetes. This research frequently addresses the unique needs of elderly, frail and medically complex patients who account for large percentages of the inpatient population. These investigations ultimately apply to all hospitalized patients by improving patient safety, preventing hospital-acquired infections, managing care transitions and improving health care technology such as electronic health records and computerized physician order entry systems.

MEDICARE IMPLICATIONS

Hospitalists bring value to Medicare and its enrolled patients by reducing re-admission rates, avoiding unnecessary hospital admissions, enhancing patient safety and improving quality of care. This is directly in line with the public and private sectors' major efforts to reduce medical errors and improve the quality of healthcare. Hospitalists may also help to reduce Medicare expenditures over time by providing more efficient use of hospital resources.

As previously noted, in 2004 hospitalists served as attending physicians for an estimated 5.4 million hospitalized patients, 44 percent (2.4 million) of whom were Medicare beneficiaries. This represents about 20 percent of all Medicare discharges in that year. Based on data from the Congressional Budget Office (CBO), we estimate that in 2004 Medicare spent approximately $22.6 billion on hospital care for Medicare beneficiaries who were under the care of hospitalists.[28] If projected increases in the number of hospitalists reach 30,000 by 2010, over 5.6 million Medicare beneficiaries, or about 43% of Medicare hospital discharges, will be under the care of hospitalists.[29]

Further, if hospitalists reduce cost and length of stay – as evidenced by the experience to date - Medicare expenditures could be reduced commensurately. Anecdotal data to date indicate that hospitalists reduce unnecessary admissions and re-admissions.[30] Using 2003 Medicare utilization data, a one percent reduction in Medicare patient discharges would result in 119,000 fewer hospital admissions and $1.075 billion in healthcare savings. While some of these savings may represent cost shifting to another care setting, (e.g., ambulatory services), real cost savings will come from improved quality, error reduction, streamlining processes, eliminating redundant services and ensuring that patients get the right care at the right time.

POLICY RECOMMENDATIONS

CMS DEMONSTRATION PROJECTS:

We believe the potential contributions of hospitalists to patient care resource management merit further study and evaluation. Carefully designed research to determine the impact of hospitalists could validate the accumulating anecdotal evidence on the benefits of hospitalist programs. We believe that the Medicare program should provide significant leadership in this area by sponsoring one or more demonstration programs designed to assess the contributions of hospitalists to the many dimensions of inpatient care.

Below we have outlined several Medicare demonstration projects that we urge the Centers for Medicare & Medicaid Services (CMS) to include in their research agenda for this fiscal year.

1. **Pay-for-Performance Demonstration –** CMS should establish a pay-for performance project to evaluate the cost saving potential of hospitalist programs. CMS would permit hospital medicine programs to enroll in the demonstration which would continue for three years. Participating hospitals would be required to report the same quality of care and patient safety indicators that are currently in place in the Medicare Pay-for-Performance Quality Demonstration project. CMS would negotiate performance targets related

to the level of improvement as well as rank order. The evaluation could compare demonstration hospital performance with hospitals participating in the Pay-for-Performance Quality Demonstration.

Physician quality reporting metrics should be specifically designed and targeted to measure the impact that hospitalists may have on the quality of inpatient medical care.

2. **Comparing Outcomes between Co-management Surgical Teams and Traditional Surgical Teams –** The purpose of this demonstration would be to compare postoperative outcomes of patients treated by hospitalist/surgeon co-management teams with those managed by traditional surgical teams. While some studies have shown that hospitalists reduce patient readmission and post-discharge mortality rates,[31] less is known about the potential benefits of hospitalists and surgeons co-managing patients perioperatively.

OTHER POLICY RECOMMENDATIONS:

We also recommend to Congress several proposals that will help to advance hospital medicine by removing barriers to collaborations between hospitals and hospitalists and more thoroughly document the effectiveness of hospitalist programs in reducing medical errors.

1. **Align Hospital/Physician Incentives** to improve the safety, effectiveness, patient-centeredness, timeliness, efficiency and equity of inpatient medical care. Such arrangements, commonly referred to as "gainsharing", align the incentives of physicians, hospitals, and the Medicare program to encourage the delivery of the highest quality of care to Medicare beneficiaries. Federal law should foster hospital-physician arrangements that provide incentives for care improvement.

   Under the Deficit Reduction Act (S. 1932), HHS must establish six gainsharing demonstration projects to test and evaluate methods and arrangements between hospitals and physicians to improve the quality and efficiency of care. Currently, most discussion about gainsharing has been limited to medical devices and technology. The potential application of gainsharing arrangements to cognitive evaluation and management services has not been discussed. It is important to support at least one demonstration project that focuses on inpatient medical services such as those provided by hospital medicine programs.

2. **Increase funding for AHRQ for emphasis on research related to inpatient safety and quality.** Hospitalists recognize AHRQ's vital role in improving the quality of our nation's health and are collaborating with the agency on a number of its projects, including PSNet, Partnerships in Implementing Patient Safety, evidence-based patient safety practices and IHI's 100,000 Lives Campaign. This campaign has enlisted more than 3,000 hospitals to undertake interventions that have been proven to prevent avoidable deaths. As of June 2006, IHI estimates that the campaign has prevented 122,300 avoidable hospital deaths.[32] SHM supports adequate and secure funding for the Agency for Healthcare Research and Quality at the level of $440 million to support the overall mission of the agency, particularly its role in achieving improvements in patient safety.

3. **Direct AHRQ to study the impact of hospitalists on reducing medical errors.** Congress should direct AHRQ to study how hospitalist programs reduce medical errors and improve patient outcomes. If the study identifies successful practices and procedures that achieve these outcomes, this would advance adoption of hospitalist programs.

4. Finally, Congress should support S. 1000, the "Palliative Care Training Act". The measure, introduced May 11, 2005 by Senator R. Wyden (OR), would provide hospice and palliative care academic career awards to increase the number of permanent palliative care faculty at accredited allopathic and osteopathic medical schools and promote faculty careers for academic palliative care specialists who emphasize teaching. The program is essential to help ensure that all patients can get basic palliative care.

CONCLUSION

In less than ten years the hospitalist movement has moved from a fledgling inpatient practice model used mostly by managed care plans to a dominant inpatient care model rapidly spreading across the country. Based on the last five years of experience, it is reasonable to project that by 2010 hospitalists will be practicing in almost every hospital larger than 100 beds and in many smaller facilities. This paper has introduced policymakers to hospitalists and their role in the U.S. health care system. We hope that through this effort, policymakers are better sensitized to hospitalists' patient care value and that such sensitivity will assist policymakers in the adoption of policies and programs for the efficient delivery of health care.

ATTACHMENT A

HOSPITALIST CARE: THE PATIENT'S PERSPECTIVE

Leona Smith, a 75 year old woman with a medical history of diabetes, congestive heart failure and emphysema, is brought to the Memorial Hospital emergency department at 10:00 PM with fever, confusion and shortness of breath. The emergency physician diagnoses pneumonia and recommends inpatient admission. Because Mrs. Smith's primary care physician does not maintain admitting privileges at Memorial Hospital, the emergency physician contacts the hospitalist on call. The hospitalist service provides acute inpatient care to all "unassigned patients"; i.e. patients who require hospitalization but do not have a primary care physician on staff. The majority of unassigned patients at Memorial Hospital are un- or under-insured, elderly and minorities. Many suffer from substance abuse and chronic psychiatric illnesses.

Like many hospitalist programs, the hospitalist service staffs at least one physician in the hospital 24 hours a day, 7 days a week. Dr. Davis, the hospitalist on call, evaluates Mrs. Smith in the emergency department at 1:00 AM. She feels very comfortable with her case, as she manages about 50 cases of pneumonia per year, mostly in patients who are elderly, frail and medically complex.

At 7:00 AM, Dr. Davis finishes her night shift and checks out to her partner, Dr. Geller. That morning, Dr. Geller sees Mrs. Smith and reviews her lab results. He calls her primary care physician to inform him of the admission and get further information. Later, Dr. Geller leads multidisciplinary rounds with the nursing staff, pharmacist, physical therapist and case manager. A nurse notes that Mrs. Smith is too weak to get out of bed alone and the case manager observes that she lives alone in a 2nd floor apartment with no elevator. Dr. Geller determines that Mrs. Smith will likely have to transition to a skilled nursing facility after discharge for further strengthening. The case manager begins to look for appropriate facilities near Mrs. Smith's home.

According to a series of protocols developed and championed by the hospitalist service, while in the hospital, Mrs. Smith automatically receives influenza and pneumonia vaccines, has her diabetes intensively managed with state of the art insulin therapy and receives protective treatment to keep her from developing a blood clot in her leg while she is bedridden.

In the afternoon, Mrs. Smith's daughter Janice arrives and asks to speak to her physician. Dr. Geller meets her at the bedside within an hour of her arrival. They talk for 20 minutes and agree to touch base every day at the same time. Later that afternoon, Mrs. Davis becomes short of breath. Dr. Geller arrives at the bedside within minutes of being called. He determines that Mrs. Smith has developed fluid in her lungs from her congestive heart failure and prescribes treatment. He returns to the bedside twice over the next three hours to check her progress. At 7:00 PM, he is relieved by the night hospitalist, who will drop by Mrs. Smith's room before bedtime to ensure that she has fully stabilized.

Three days later, Mrs. Davis has improved significantly but still requires admission to the nursing home. Dr. Geller calls Mrs. Davis' primary care physician to inform him that she will arrive at the nursing home the next morning for rehabilitative care. He completes her discharge orders and faxes them directly to the primary care physician's office to ensure that her physician will have the information necessary to continue her care at the nursing home.

REFERENCES

[1] Wachter RM, Goldman L. "The Emerging Role of "Hospitalists" in the American Healthcare System" New England Journal of Medicine, 1996; 335:514-7.

[2] Hospitalists are different from "intensivists" who specialize in the management of critically ill patients in intensive care units (ICUs).

[3] The Society of Hospital Medicine (SHM) estimates that during 2004 the average full-time hospitalist was the attending physician for about 2300 patient days per year. SHM further conservatively estimates that half of these days were for Medicare beneficiaries, or approximately 1150 Medicare patient days. There were approximately 13,000 hospitalists in the U.S. in 2004. Assuming the average hospitalist is a .90 full time equivalent, in 2004, there were about 11,700 full time hospitalists in the U.S. Thus, during 2004, hospitalists provided about 13.45 million Medicare patient days or over 2.4 million Medicare discharges based on the Medicare Payment Assessment Commission's (MedPAC's) report of an average length-of-stay in 2003 (the latest period for which there was reliable data) of 5.5 days. MedPAC also reported that in 2003 there were 11.9 million Medicare discharges. Finally, according to the Dept. of Health and Human Services ("Health, United States, 2004") the average length-of-stay (ALOS) for all non-Medicare patients in 2003 was 4.5 days. Thus, during 2004 hospitalists provided about 13.45 million non-Medicare patient days or about 3.0 million non-Medicare discharges. In total, a conservative estimate is that hospitalists were the attending physicians for about 5.4 million patients during 2004.

[4] SHM is the leading national resource and voice for hospitalists in today's U.S. health care system. The SHM supports and enhances the practice of hospital medicine and the delivery of healthcare to the patients served by hospitalists.

[5] Center for Studying Health System Change, Health Market Changes Spur Use of Hospitalists Across the U.S. Journal Study Examines Market Trends Driving Use and Roles of Hospital Medicine Specialists, Press Release, February 1, 2005. http://www.hschange.org/CONTENT/729/

[6] Miller, Joseph A. How Hospitalists Add Value, Special Supplement to the Hospitalist, Vol. 9 Supplement 1 2005.

[7] Demand for intensivists will outstrip supply starting in 2007, leading to a 35% shortfall of by 2030. Angus DC, Kelley, MA, Schmitz RJ, White A, Popovich J. Committee on Manpower for Pulmonary and Critical Care Societies Current and Projected Workforce Requirements for Care of the Critically Ill and Patients With Pulmonary Disease Can We Meet the Requirements of an Aging Population? JAMA. 2000;284:2762-2770.

[8] Siegel, D., "Is there a Hospitalist in the House" Washington University in St. Louis, School of Medicine, Office of Medical Pubic Affairs Outlook Fall 2002.

[9] In Massachusetts, for example, only four out of 75 acute care hospitals had hospital medicine programs in 1996. In 2005, 210 Massachusetts hospitalists coordinated care for 42 percent of 1.8 million inpatient days annually. Vernick, R. and Wilson, M., "The Rise of Hospitalists, Part 1" Hospitals and Health Networks Magazine, August 2005.

[10] Adams, D. New Studies Back Effectiveness of Hospitalists. American Medical News. September 13, 2004. Author cited Laurence Wellikson, MD, SHM's executive director as saying that "about 1,800 hospitals used hospitalists . . .." According to the American Hospital Association, in 2003, there were 4,895 acute care hospitals in the U.S.

[11] Lurie et al. The Potential Size of the Hospitalist Workforce in the United States. Am J Med. 1999; 106:441-5

[12] Kralovec P, Miller JA, Wellikson L, Huddleston JM. The status of hospital medicine groups in the United States. Journal of Hospital Medicine. March/April, 2006; 1(2): 75-80.

[13] Other site of care medical disciplines include emergency department and intensive care physicians.

[14] SHM, "Media Kit" www.hospitalmedicine.org

[15] The Society of Hospital Medicine 2005-2006 Survey: The Authoritative Source on The State of the Hospital Medicine Movement.

[16] This is mostly due to the change in the Medicare practice expense component that cut payment rates for facility-based care and increased payment rates for office-based care.

[17] Huddleston, J.M., Long K.H., Naessens, J.M., et al. "Medical and Surgical Comanagement after Elective Hip and Knee Arthroplasty; a Randomized Controlled Trial" Annals of Internal Medicine 2004; 141:28-38

[18] PSNet is the one of the latest patient safety improvement endeavors by AHRQ, which leads the federal government's effort to improve patient safety and reduce medical errors. AHRQ's mission is to improve the quality, safety, efficiency, and effectiveness of health care for all Americans.

[19] Examples of transition times include patient transfers from the emergency department to the ICU and on to the medical/surgical floor or from inpatient to outpatient status.

[20] The Core Competencies in Hospital Medicine. A Framework for Curriculum Development By the Society of Hospital Medicine. Supplement to the Journal of Hospital Medicine, Volume 1, Supplement 1, 2006.

[21] Wachter RM, Goldman L. The Hospitalist Movement 5 Years Later. JAMA. 2002;287:487-494. The authors reviewed 15 studies on the impact of hospitalists, showing average decrease in cost of 13.4% and 16.6% decrease in length of stay.

[22] Auerbach A, et al. Implementation of a Voluntary Hospitalist Service at a Community Teaching Hospital: Improved Clinical Efficiency and Patient Outcomes. Ann Intern Med. 2002; 137: 859-865

[23] Meltzer D, et al. Effects of Physician Experience on Costs and Outcomes on an Academic General Medicine Service: Results of a Trial of Hospitalists. Ann Intern Med. 2002; 137: 866-874.

[24] The 100,000 Lives Campaign is an initiative to engage U.S. hospitals in a commitment to implement changes in care proven to improve patient care and prevent avoidable deaths. The Campaign is the first national effort to promote saving a specified number of lives by a certain date (June 14, 2006). As of early March 2006, over 3,000 hospitals have joined this effort.

[25] According to IHI, a Rapid Response Team is a small but powerful team of clinicians experienced at assessing patients' symptoms and the trajectory of their health and is continuously and readily available to any provider who wants a second opinion about a patient, particularly a patient showing signs of potential decline.

[26] Cutland, L. "Hospital care shifts to Hospitalists" Silicon Valley/San Jose Business Journal August 1, 2005. (Cited Dr. Diane Craig, assistant physician-in-chief at Kaiser's Santa Clara Medical Center, saying that Kaiser has seen higher "satisfaction rates among it patients in outpatient settings since moving to the [hospitalist] model. . . .")

[27] Kachalia, A., and Studdert, D.M. (September 2004). "Professional liability issues in graduate medical education." (AHRQ grant HS 11285.) Journal of the American Medical Association 292(9), pp. 1051-1056.

[28] Congressional Budget Office, "Fact Sheet for the CBO's 2005 Baseline: Medicare. March 8, 2005. Medicare spent $113.7 billion on hospital inpatient care in fiscal year 2004.

[29] Based on earlier estimates and assumptions. MedPAC reports that between 1992 and 2003 Medicare discharges increased about 1 percent per year. With a base of 11.9 million Medicare discharges in 2003, it is estimated that this will grow to about 12.8 million by 2010. Assuming hospitalists, on average, continue to provide about 1150 Medicare patient days per year. With an FTE ratio of .9 there would be about 27,000 full time hospitalists in 2010 providing a total of 31 million Medicare patient days or about 5.6 million discharges (at 5.5 Medicare ALOS).

[30] Baptist Memorial, Pensacola, Florida reported in 2002 that hospitalists reduced the 30-day re-admission rate from 10.8 percent to 6 percent. Mayo Clinic, report by L. Bergstrom, MD, FACP, "Integrating Hospitalists into a General Internal Medicine Division, 2004, noted "decreased readmissions and mortality." Milstein, A. "An Employer's Perspective on Hospitalists as a Source of Improved Health Care Value," Annals of Internal Medicine. 1999; 130; 36-42. Study found that the 14 days readmission rate decreased from 9.9 to 4.6 readmissions per 100 compared to admissions before the hospitalist program. Covenant HealthCare, Saginaw, Michigan reported in 2004 that the hospitalist readmission rate was 25 percent less than that for the internal medicine physician group.

[31] Auerbach, A.D., Wachter, R.M., Katz, P., et al. "Implementation of a Voluntary Hospitalist Service at a Community Teaching Hospital" Annals of Internal Medicine, 2002;137:859-65

[32] http://www.ihi.org/IHI/Programs/Campaign/

SOCIETY OF HOSPITAL MEDICINE
190 N. Independence Mall West
Philadelphia, PA 19106
1-800-843-3360
Fax: 215-351-2536
www.hospitalmedicine.org