

■ SPECIAL REPORT

Hospital Medicine's Evolution: Literature Search and Interview Study with Practices

Ruth Greenwald, MA, MS
Marianne Novelli, MD
Tom Lorence, MD

Abstract

Introduction: Hospital medicine is a young specialty that is still evolving. In its early years, research focused on clinical outcomes, efficiency, and cost effectiveness. As the specialty matures, increasing attention is being given to the patient and hospitalist experience with the hospitalist model of care.

Methods: In 2008, we conducted a literature search to identify patients' and hospitalists' satisfaction concerns and potential strategies for their resolution. We used our findings to develop a semistructured interview guide as a basis for a wide-ranging discussion with Kaiser Permanente (KP) hospitalists and physician leaders and KP and non-KP subject-matter experts on their priorities, concerns, and successful practices.

Results: Respondents identified sustainability and communications in coordinating care as their high-priority concerns with sustainability as the top priority. Within these broad concerns, they identified contributing factors and their interrelationships. Factors influencing sustainability of the hospitalist model include hospitalist scheduling, workload, comanagement responsibilities, and recruitment and retention. Regarding communications in coordinating care, respondents viewed themselves as being in the center of a web involving communication with patients, physicians in other services, nurses, and other hospitalists.

Conclusion: Promising approaches have been developed to address sustainability concerns and for communicating with patients, physicians in other services, nurses, and other hospitalists. However, getting reliable feedback on patient satisfaction surveys for individual hospitalists is a continuing challenge. Despite the use of brochures and business cards to introduce themselves to patients and explain their role, there are difficulties in establishing a hospitalist-patient bond.

Introduction

Hospital medicine is the fastest growing specialty in the history of American medicine: There will soon be more hospitalists than cardiologists in the US.¹ Until recently, practice-management concerns influencing patient and hospitalist satisfaction were not a central focus. During the specialty's early years, research focused on clinical outcomes, efficiency, and cost-effectiveness, but there was little focus on the patient's or hospitalist's experience with the hospitalist model of care.² To ensure continued progress for hospital medicine, practice-management concerns of Kaiser Permanente (KP) hospitalists and elsewhere were explored through a literature search and interviews.

KP established the KP Hospitalists' Forum in December 2009 to develop and share promising practices. Chiefs and hospitalist leaders from most of KP's eight Regions and Group Health Permanente began to meet regularly by conference call in 2010 to discuss shared concerns. The group also contacted the Society of Hospital Medicine and other integrated health care organizations in the US to develop and to share successful practices.

Methods

Literature Search

In 2008, we conducted a literature search to identify patients' and hospitalists' satisfaction concerns and potential strategies for their resolution. Ovid, PubMed, and KP databases were explored, along with the Web site of the Society of Hospital Medicine. Search terms used included *hospitalists*, *hospital medicine*, *patient satisfaction*, *care transitions*, and *coordination of care*, with publication dates beginning in 2000.

Interviews

We used our findings from the literature search to develop a semistructured interview guide with 4 pre-

Ruth Greenwald, MA, MS, is a Senior Project Manager of Care Experience for Clinical Care and Innovation at The Permanente Federation in Oakland, CA. E-mail: ruth.n.greenwald@kp.org.

Marianne Novelli, MD, is the Physician Manager of Clinical Reporting and Resource Stewardship at the Colorado Permanente Medical Group and the former Regional Department Chief of the Colorado Hospital Medicine Group. E-mail: marianne.f.novelli@kp.org.

Tom Lorence, MD, is the Chief of Hospital Medicine for Northwest Permanente in Portland, OR. E-mail: tom.lorence@kp.org.

determined questions as a starting point for a wider-ranging discussion. Interviews with 11 KP hospitalists, 2 KP physician leaders, and 10 KP and 1 non-KP subject-matter experts on patient satisfaction and hospitalist career-satisfaction concerns were conducted from August 2008 to May 2009. Respondents reviewed a summary of literature search findings, expressed their perspectives and priorities regarding the hospitalist model, and shared successful practices (Table 1).

Results: Literature Search Sustainability

Workload: In a 2005–2006 national survey conducted by the Society of Hospital Medicine, hospitalist leaders

listed workload and work–life balance among their top concerns. However, the optimal workload and care-delivery model for hospitalists has yet to be determined.²

There is evidence that some aspects of care deteriorate as patient volume increases. A 2008 time-and-motion study of hospitalists at Northwestern Memorial Hospital in Chicago showed the impact of increasing patient volume on how hospitalists allocate their time to direct patient care, indirect patient care, communication, and electronic medical record use.³ Except for direct patient care, there were statistically significant decreases in the amount of time spent on the other activities per patient as volume increased. The researchers concluded that as volume increases, hospitalists spent less time communicating with nurses, subspecialists, and primary care physicians (PCP); wrote less-complete notes; delayed completing discharge summaries; and spent more time multitasking.

Data gathered at the KP Sunnyside Medical Center in the Northwest Region showed a strong positive relationship between daily hospital census and average length of hospital stay from January to October 2009. As shown in Figure 1, census increases appeared to adversely affect hospitalists' ability to proactively coordinate discharges and inhibit throughput.

Comanagement Responsibilities: The hospitalist–orthopedic comanagement model used at Loyola University Medical Center in Maywood, IL was found to improve patient care and satisfaction.⁴ The distinguishing feature of this model was the proactive involvement of the hospitalist before admission in a structured preoperative risk assessment and management. During admission, the comanaging hospitalist played an active role in the daily care of the patient such as conducting daily rounds, writing progress notes and orders, assessing and managing acute issues, and facilitating discharge planning and care transitions. Communication with the surgical team was a scheduled daily activity. After surgery, a hospitalist was responsible for the continued management of medical problems for patients transferred to the rehabilitation unit. The observed-to-expected ratio for length of hospital stay was shorter for the patients at high risk and with multiple comorbidities (0.693 days) whose cases were comanaged, compared with 0.862 days for patients in the control group. The severity of illness and mortality-risk scores were higher in the group whose cases were comanaged. Patient satisfaction scores for that group increased by 5% for “communication with doctors” and by 14% for “doctors treated you with respect.”

Table 1. Respondents	
Title	Region
Formal interviews	
Chief of Hospital Operations and Diagnostics ^a	Colorado
Regional Department Chief, Hospital Medicine ^a	Colorado
Chief, Hospital Services ^a	Georgia
Chief of Hospital Medicine ^a	Ohio
Chief of Hospital Medicine ^a	Hawaii
HBS Physician ^a	Hawaii
Lead Hospitalist, Sunnyside Medical Center ^a	Northwest
Regional Medical Director for Hospital and Continuing Care Operations	Northern California
Regional Hospitalist Coordinating Chair, SCPMG ^a	Southern California
Informal conversations	
Medical Director, Primary Care	Northwest
Chief of Hospital Medicine ^a	Northern California
HBS Nurse	Northern California
TPMG Service Director	Northern California
HBS Physician ^a	Northern California
HBS Physician ^a	Northern California
Regional Patient Safety Lead	Ohio
Assistant Medical Director for Critical Care and Hospital Services	Ohio
Senior Program Consultant	Care Management Institute
Director, Risk Management and Patient Safety	The Permanente Federation
Vice President, Safety Management	Program Office
National Leader, Patient Safety and Risk Management	Program Office
Regional Coordinator, Regional Clinician–Patient Communication Program	Southern California
HBS Physician ^a	Southern California
Administrative Service Line Leader	Southern California
Director, Performance Improvement	Southern California
Department Administrator	Southern California
Senior Vice President	Society of Hospital Medicine

^aHospitalist
HBS = hospital-based specialist; SCPMG = Southern California Permanente Medical Group;
TPMG = The Permanente Medical Group

The time between discharge from the hospital and first visit with the PCP is a “gray zone” where there is no universally accepted standard defining who is responsible for care. One reason is that the hospital system was designed so that responsibility for care ends at discharge. This has become more apparent in the posthospitalist era with the decreasing involvement of PCPs in caring for their hospitalized patients.⁵ Some strategies that health care organizations have used to cover this gray zone are described in the following sections.

There is evidence that postdischarge phone calls improve patient satisfaction, increase medication adherence, decrease preventable adverse drug events, and decrease the number of subsequent Emergency Department (ED) visits and hospital readmissions.⁶ Patients who received a follow-up phone call by a pharmacist within two days of discharge were compared with a group of patients who were not called.⁷ During the phone call, pharmacists asked patients if they obtained their medications and understood how to take them. Results from a postdischarge satisfaction survey showed that 81% of the patients in the phone-call group compared with 61% in the no-call group were satisfied with discharge medication instructions. In 19% of the phone calls, pharmacists identified and resolved medication-related problems. Fifteen percent of the patients contacted by telephone reported new medical problems requiring referral to their inpatient team. Ten percent of the patients in the phone-call group returned to the ED within 30 days, compared with 24% in the no-call group.

A hospitalist group in Virginia has home health agencies phone them during the first postdischarge visit in addition to sending their usual report to the PCP. The hospitalists consider themselves still responsible for the patient at the first home health visit.⁵ Results from this intervention have not been reported to date. The need for this approach was supported by a study⁸ showing that 39% of discharged patients exhibited the first sign of a deteriorating condition at the first home health visit. For 26% of these patients, a physician was not notified the same day that the worsening condition was observed.⁸

Several hospitalist groups scheduled “bridging clinic” sessions in their practices for their patients with complex care needs, such as intravenous catheters or multiple antibiotics in the immediate postdischarge period before hand-off to the PCP.⁹

Recruitment and Retention: The hospitalist workforce is mobile, and demand for hospitalists is increasing, so it is a seller's market with major challenges in recruit-

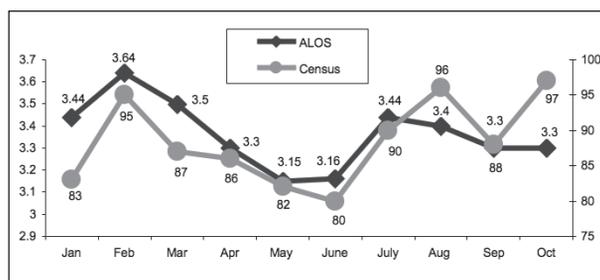


Figure 1. Daily hospital census and average length of hospital stay at Kaiser Permanente Sunnyside Medical Center (KPSMC) from 1/09 to 10/09.

ALOS = average length of stay

ment and retention. Primary reasons for high hospitalist turnover were heavy workloads of 20 or more patients per day, the increasing diversity of clinical and non-clinical duties, and the ability to easily change hospitals because of better offers or job dissatisfaction. Vasilevskis et al¹⁰ reported that the average hospitalist group in California had a 33% churn (hires and departures) in 2007. Pham et al⁹ observed that Hospital Medicine primarily attracts young physicians. Hospitalist groups reported a mean turnover rate of 13% in 2005 with 25% of departing hospitalists entering specialty fellowships or other training programs. Because of these factors, the researchers concluded that outside of well-established hospitalist programs, it is difficult to recruit and retain seasoned hospitalists.⁹

Emphasis on Communications

A 2006 time-and-motion study conducted at Northwestern Memorial Hospital in Chicago showed that hospitalists spent a large proportion of their time communicating compared with nonhospitalists.¹¹ A 2008 study at the same hospital showed that hospitalists spent 25.6% of their time on communications. Hospitalists spent the most time communicating with other physicians (44.5%) and nurses (18.1%).¹² The emphasis on communication appears to be justified. Although most PCPs are satisfied with the care delivered by hospitalists, they are less satisfied by hospitalist communications.¹³ Nurses and physicians discussed patients' plans of care 50% of the time and agreed on the priorities of care in 17% of cases.¹ Relatively little research has been done on improving hospitalist communication in coordinating care.

Hospitalist–Hospitalist Communications: Much attention has been focused on communications about transitions between care settings, but little attention has been paid to communications during shift changes despite their daily occurrence. Communications failures

Several hospitalist groups scheduled “bridging clinic” sessions in their practices for their patients with complex care needs ...

Reasons for poor information transmittal include a chaotic physical environment, the hierarchic nature of medicine ... language barriers among physicians, lack of face-to-face communications, and time pressure.

at shift change are characterized by omissions of content or by failure-prone communications processes. This often leads to uncertainty in patient care decisions, resulting in unnecessary or repeat work.¹³ Reasons for poor information transmittal include a chaotic physical environment, the hierarchic nature of medicine (which can discourage open communication between health professionals), language barriers among physicians, lack of face-to-face communications, and time pressure.¹⁴

An effective hand-off includes the transfer of critical patient information needed to continue patient care and the acceptance of responsibility for caring for that patient. The situational briefing model, or SBAR (situation, background, assessment, and recommendation) is a technique developed by the US Navy for communicating critical information and has been used by hospitals, including many in KP. In addition to a structured approach, formal training in hand-offs is needed because it is not included in most internal medicine residency programs.¹³ A 2004 survey of internal medicine subinternship clerkship directors at 125 US medical schools showed that only 8% of such programs teach how to hand off patients in a formal didactic session.¹⁴

A 2006 survey conducted by the Victorian Quality Council of Public Health Services in the Australian state of Victoria on the types of clinical hand-offs identified the shift-to-shift hand-off as being most problematic.¹⁵ As a follow-up to the survey, they developed a hand-over improvement toolkit.¹⁶ They recommended that hand-offs should be face-to-face in a dedicated location that comfortably holds all participants and with minimal interruptions. Shifts should overlap to allow enough time for departing and arriving physicians to make the hand-off, with the duration varying between 30 and 60 minutes, depending on patient load. A study showed that the amount of time used to prepare and execute the hand-off also varied by the type of service being covered (general medicine ward vs intensive care unit) and that the average time was 18.7 minutes.¹⁴

Hospitalist–Patient Communications: A survey reported in 2009 showed that hospital patients are rarely able to identify their physicians by name or describe their roles in the patients' care. Of the patients participating, 75% were unable to name a physician assigned to their care. Of the 25% who responded with a physician's name, only 40% were correct. Patients who claimed to understand the roles of their physicians were more likely to correctly identify at least one of their physicians. Patients able to name one of their physicians also were more likely to be dissatisfied with their care.¹⁷ One small study showed that giving patients

business cards with photos improved patients' ability to identify their hospitalists.¹⁸ Patients may not be able to distinguish their hospitalist from other physicians involved in their care.¹⁹ The ability to do so is important because, according to findings from the Society of Hospital Medicine, half of the hospitalist programs in the US have some of their compensation tied to quality metrics. The percentage is expected to increase and include some satisfaction scores for patients.¹⁹

Effective hospitalist–patient communications are necessary to prepare patients for a smooth transition from hospital to home or other care setting. Project BOOST (Better Outcomes for Older Adults through Safer Transitions in Care) is a mentoring program sponsored by the Society of Hospital Medicine and the John A Hartford Foundation to improve patient care during the transition from hospital to home. It proposed a number of promising interventions and approaches that were tested and refined at 24 pilot sites in 2009. These interventions are described in the Project BOOST Toolkit on the society's Web site.²⁰

Communication with Physicians in Other Services: The scope of hospital medicine has grown and is still evolving. Comanagement of cases involving surgical patients is increasingly common; in California, 61% of hospitalist groups provide surgical comanagement.¹⁰ Surgical comanagement will probably become more common, particularly for cases involving older surgical patients with chronic diseases.²¹ The widening scope of practice has led to increased demand for hospitalists. A leader at the University of California San Francisco Medical Center reported that the number of hospitalists in his program grew from 15 in 2004 to 38 in 2007, largely because of the development of nonteaching, hospitalist-based services in general internal medicine, oncology, cardiology, and neurosurgery.²¹ The expansion of the hospitalist role requires the development of service agreements between specialty services and hospitalists to ensure that tasks and clinical responsibilities are coordinated effectively.¹⁰ Three key areas that service agreements should cover are admitting procedures, clinical responsibilities, and physician communications. Service agreements should be developed early and revised often.²² Although teamwork and collaboration have been extensively studied in operating rooms and intensive care units, little research exists for the general medical inpatient setting. There is a need to better characterize communication patterns and define barriers to communication between hospitalists and other inpatient health care team members.¹

A study of communications between Emergency

Medicine physicians (EMs) and hospitalists found that they had different expectations about hand-offs and that these expectations influenced their interactions in ways that could result in communication breakdowns.²³ EM-hospitalist communications are especially important because the hospitalist service is a common recipient of ED patient admissions and ED-initiated hand-offs. Two barriers in hand-off communication are poor communication practices, including insufficient, incomplete, and omitted information, and conflicting information expectations stemming from EMs' and hospitalists' differing approaches to patient care. The study showed that EMs wanted information that helped them treat patients' immediate needs but that hospitalists wanted information that helped them make admitting diagnoses and plan inpatient treatment. Conflicting expectations for information influenced physicians' hand-off behaviors, and those communication practices affected interservice relationships. Hospitalists believed that they were being "dumped on" with admissions that were difficult to justify, whereas EMs believed that their professional opinions were being questioned.

Results: Interviews

We gave the KP hospitalists, KP hospital leaders, and KP and non-KP subject-matter experts a list of concerns derived from the literature search. They could comment on the concerns, define them more broadly or narrowly, draw connections between them, and name their top-priority concerns. They were also asked to identify promising practices within KP that address these concerns. Respondents felt most strongly about sustainability and communications in coordinating care; they assigned top priority to sustainability.

Sustainability

Respondents identified four major factors that influence sustainability of the hospitalist model. These factors and their interrelationships are depicted in Figure 2. Issues raised by interview participants regarding sustainability are shown in more detail in Table 2.

Practices to Enhance Sustainability

Approaches have been developed in various KP Regions and Medical Centers that have enhanced sustainability. These approaches are not end-state but are evolving as the hospitalist model grows and matures.

Scheduling: Six-Day/Eight-Hour Rounding Schedule. In Colorado, hospitalists briefly used the traditional "7 days on, 7 days off" schedule but found it personally

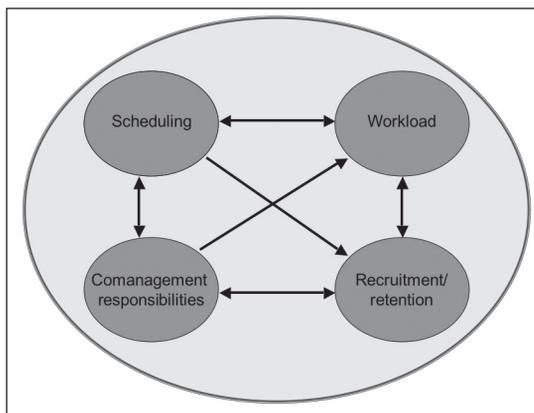


Figure 2. Four major factors that influence sustainability of the hospitalist model.

Table 2. Issues of sustainability posed as questions ^a
Scheduling
What is the rotation that optimally balances the number of patient hand-offs between hospitalists with job sustainability?
How can schedules be designed to minimize off-hours shifts, and should there be differential pay for these shifts?
Workload
What is the appropriate "panel size" for hospitalists?
How can relative value unit (RVU) measurement be modified to better capture hospitalist activities, and what alternatives are there to RVUs? "We do a lot of things that we can't assign an RVU to."
What is the optimal balance between cost-efficient care and service? "There is pressure on hospitalists to do things as efficiently as possible, but this might conflict with service, like discharging patients too soon."
Comanagement responsibilities
Should there be limits on the types of medical and surgical cases hospitalists are expected to handle as the primary physician? "We get involved in consultations that cross over into other areas. There is some pushback from hospitalists about admitting surgical patients, but the trend across the US is to cover more."
What should the relationship be between hospitalists and subspecialists in caring for orthopedic, oncology, neurosurgery, and other patients requiring expertise beyond their scope?
Who is responsible for managing care between discharge and first visit with the PCP? "Until you decide who is in charge, things will be chaotic."
How could midlevel clinicians be most effectively used?
Recruitment and Retention
How can our organization successfully compete with others to staff hospitalist positions? "The salary structure for new hires hasn't kept up with the community. The tradeoff is that we don't work nights and have lower workloads, but new doctors are carrying a lot of debt and want to pay off their loans quickly."
What strategies are effective in reducing hospitalist turnover?

^a Interview participants expressed their concerns but also asked questions that they hoped would be answered. Although some of these questions are currently unanswered, we have included some representative quotes from interviewees that might suggest answers or avenues of inquiry.

PCP = primary care provider

and professionally dissatisfying. Through consensus, they arrived at a schedule of 6 consecutive 8-hour days of rounding, with 1 triage physician handling most daytime admissions and off-hours calls.²⁴ There is always a triage hospitalist during the day who admits patients in addition to the rounding physicians. There are at least 2 hospitalists on-site 24 hours a day, 7 days a week, and they admit and cross-cover after 7 pm. There are few moonlighters.

Workload: Sustainable Workload, Retention, and Best-Practice Development: Colorado hospitalist leaders attribute their ability to retain hospitalists to a sustainable schedule and workload. Hospitalists round for 6 days per week. The Chief of Hospital Medicine and Diagnostics stated that this “is optimal for reducing the number of hand-offs and length of stay. The ideal workload is 10 to 12 patients in an 8-hour day. If the census is over 11, length of stay increases.” She believes that career sustainability is a factor in best practice development. “The average age of hospitalists in Colorado is 40. Many groups have young physicians who prefer a 7-day-on, 7-day-off schedule, but we don’t believe that it is sustainable for the long-term career hospitalist. Some hospitalists who were in our group when it began in 1995 are still here. That longevity and experience has contributed to many best practices within the group.”

Comanagement Responsibilities: Hospitalists’ Clinics: At Group Health Permanente, the Hospitalist Department staffs Hospitalists’ Clinics on weekdays at 6 sites. Of Hospitalist Department physicians at these sites, 66% divide their time between the clinic and hospital. Patients are referred by PCPs, specialty physicians, Urgent Care Departments, or hospitalists. Sicker patients who are heavy users of the hospital or ED are comanaged with their PCPs through visits to Hospitalists’ Clinics. Preoperative evaluations for patients at high risk are also conducted. By providing another treatment venue, Hospitalists’ Clinics prevent unnecessary hospitalization and ED visits for patients with chronic conditions who are decompensating. This approach may increase career sustainability. The Hospitalist Chief observed that hospitalists with clinic and hospital duties have less risk of burnout than those with only hospital duties.

Comanagement Responsibilities: Postdischarge Calls to Manage Transitions: Inpatient-care coordinators in Ohio schedule a phone appointment with the patient’s PCP within 72 hours of hospital discharge. Physicians ask a standardized SmartSet of questions during the phone conversation, including questions on medication reconciliation.

Colorado hospitalists complete summaries at discharge that are sent electronically in real time to patients’ home clinics. Patients receive a follow-up call from care coordinators within 48 hours of discharge and are seen in their home clinic within 1 week of discharge. This has decreased the readmission rate and improved patient satisfaction.

In San Rafael, CA, a registered nurse (RN) and medical assistant (MA) in the Hospitalist Department phone patients within 24 to 48 hours of discharge. The phone calls are “a safety net between the hospital and the PCP.” They ask how the patient is feeling, review medications, and make sure there is a follow-up appointment with the PCP. On the basis of what they discover during the phone conversation, the RN and MA communicate with the appropriate medical staff to address the patient’s postdischarge concerns. Patients can also phone the RN and MA directly. Before discharge, the RN and MA visit patients to introduce themselves and to tell them to expect a postdischarge phone call. They believe “it is good to put a face to a name” for both patient relations and medical reasons. Meeting patients during the hospitalization makes the RN and MA aware of their medical condition and functional level so that they can recognize postdischarge deterioration and alert appropriate medical staff.

Comanagement Responsibilities: Improving Transitions in Care: KP is using several approaches to improve transitions in care. The Care Management Institute (CMI) is doing ongoing work on developing a patient-centered transition model to improve care during the transition from hospital to home. The goal is for all patients going from hospital to home to understand how to take care of themselves, the follow-up plan, medication instructions, whom to call with questions, what to expect at home, and warning signs. There is wide regional participation in the development, testing, and refinement of patient-centered transitions design. A pilot at Southern California’s South Bay Medical Center that focused on improved medication reconciliation for patients with heart failure resulted in a decrease in the 30-day rehospitalization rate from 13.7% to 9.0% for an 8-month period ending April 2009. Another pilot is the KP Northwest Comprehensive Transitions Project, started in March 2009, that focuses on successful transitions for patients at high risk. A transition bundle to address patients’ needs was created and implemented. Hospitalists play a key role by preparing standardized same-day discharge summaries, handling medication reconciliation, and being accountable for care in the 48 hours after discharge.

As a pilot site for Project BOOST, West Los Angeles Medical Center built on its transition work with the CMI and the KP Innovation Consultancy. A 26-person multidisciplinary team with internal and external participants convened in mid-May 2009. The team includes the Chief of Internal Medicine, an inpatient pharmacist, the Director of Nursing Education, experts in hospital informatics, a caregiver (a friend or relative of a patient), and other stakeholders. The team's focus is on improving patient education, medication reconciliation, and discharge.

Recruitment and Retention: Involvement in Hospital Management: There is low hospitalist turnover at the KP San Francisco Medical Center. Since 1997, only 5 of 21 hospitalists have left. Reasons for leaving have included retirement, transfer to another KP hospital, an out-of-state move, and career changes. The former Hospitalist Department Chief attributed this success to hospitalist involvement in hospital management and operations and to giving hospitalists the opportunity during three lunch meetings per month and at other times to provide input on scheduling and policy matters. "Almost everyone has an administrative role or is a champion of a health initiative." Because of staff longevity, there is also good mentoring for new hires.

Recruitment and Retention: Part-time Scheduling Option and Selectivity in Hiring: Of 20 hospitalists in Georgia, 6 have tenure of more than 10 years. The Hospitalist Department Chief attributed this success to limiting the number of patients whom a hospitalist sees to no more than 12 in a 10-hour day and also to permitting hospitalists to work part time. "People don't get overburdened. They stay fresh and are enthusiastic about their work." Another factor that may contribute to the low turnover is that they are very selective about new hires. Everyone on the team has an opportunity to interview a candidate, and "if there is a strong objection, we pass."

Communications in Coordinating Care

The other top-priority concern that KP hospitalists, KP hospital leaders, and KP and non-KP subject-matter experts identified was communications in coordinating care. Respondents viewed themselves as being in the center of a web involving communication with patients, physicians in other services, nurses, and other hospitalists. Effective communication with all of these stakeholders is vital to ensure that patients receive coordinated care while in the hospital and have a smooth transition from hospital to clinic or other care setting. One of the hospitalists interviewed said that

communication "is an issue for all physicians, not just hospitalists. There is not enough communication in general." Issues raised by interview participants are shown in more detail in Table 3.

Practices to Enhance Communications in Coordinating Care

As with approaches to enhance sustainability, various KP Regions and Medical Centers have developed approaches to enhance communications in coordinating care. These approaches are evolving as the specialty matures.

Hospitalist–Hospitalist Communications: Hospitalist-to-Hospitalist Hand-Offs: In Colorado, sign-out notes in the electronic medical record are used for patient hand-offs from the admitting to the rounding hospitalist and again from the outgoing to incoming rounding

Table 3. Issues of communications in coordinating care posed as questions^a

Hospitalist–hospitalist communications
How can end of shift hand-offs be improved? <i>"Hospitalists should get communications sorted out among themselves first."</i>
How can end-of-rotation hand-offs be improved?
Hospitalist–patient communications
What is the most effective way for hospitalists to introduce themselves to patients and explain their role?
How can hospitalists become more "memorable" to patients so that patients can offer meaningful feedback on patient satisfaction surveys? <i>"Patients don't remember who their hospitalists are."</i>
How can patient-satisfaction survey results be linked to a specific hospitalist? <i>"We have never been able to develop a survey tool that is specific to a particular doctor. The survey is taken as a team rather than as individuals."</i>
What can be done to better prepare hospitalized patients for discharge?
How can discharge phone calls with patients be used for effectively managing care?
Should discharge phone calls be strictly clinical or include questions on the patient's care experience?
Hospitalist–nurse communications
How can the expectations that physicians and nurses have of each other be clarified?
Communications with physicians in other services
Should there be service agreements between specialists, ED physicians, intensivists, and hospitalists to define their roles in patient care? <i>"Subspecialists view us not as partners but as residents, pairs of hands to do what needs to be done rather than partners in the care of the patient."</i>
How can physicians caring for the same patient achieve consistency in communications with the patient?
What information and in how much detail should hospitalists provide PCPs? (What is the optimal balance between supporting PCPs and performing other inpatient care duties?)

^a Interview participants expressed their concerns but also asked questions that they hoped would be answered. Although some of these questions are currently unanswered, we have included some representative quotes from interviewees that might suggest answers or avenues of inquiry. ED = Emergency Department; PCP = primary care provider

The low hospitalist turnover is attributed ... to hospitalist involvement in hospital management and operations and to giving hospitalists the opportunity ... to provide input on scheduling and policy matters.

hospitalist at the end of the rotation. Sign-out notes include a brief summary of key issues and clinical concerns for each patient.

Hospitalist–Hospitalist Communications: Geographic Rounding, Round-Robin Rotation, and Paired Rounding: Geographic rounding in the Northwest was implemented in August 2008. Because patients tend to be discharged from the unit they are initially assigned to, 80% of patients had their physician on the floor. There are 2 hospitalists on a floor. This approach for assigning patients to hospitalists had the added benefit of facilitating nurse–hospitalist communications. Geographic rounding was discontinued because under this approach, it was difficult to distribute workload evenly among hospitalists. Currently, patients are assigned to hospitalists using round-robin rotation, where each team of hospitalists takes turns accepting admissions.

Paired rounding is an alternative to geographic rounding that offers the same expected benefit in patient–hospitalist bonding but with a varied work environment for hospitalists. San Diego hospitalists round for seven days on and seven days off. Two hospitalists with alternating work schedules cover the same patient panel. When one hospitalist is off, the other is on, and they hand patients back and forth to each other. The paired physicians get used to each other's style, and patients with longer lengths of stay have only two hospitalists. Currently more than half of the patients are seen by paired teams of dedicated rounders.

Hospitalist–Patient Communication: Brochures and Business Cards with Photos: In some Regions and facilities, hospitalists have brochures (Northwest, Northern California's San Rafael and Richmond Medical Centers) and business cards with photos (Northern California's Santa Clara Medical Center) to give to hospitalized patients. The purpose of the brochure is to explain hospitalists' role and their interface with PCPs and other physicians and to provide contact information for patients and families during and after hospitalization. Brochures and business cards with photos have been mentioned in the literature as potentially effective bonding tools.⁶ However, brochures and business cards can be effective only if patients receive them. At one facility, "the brochure is often filed in the chart instead of given to patients." Follow-up may be needed until hospitalists get in the habit of giving brochures and business cards to patients. At Northern California's Santa Clara Medical Center, a hospitalist and the Medical Group Service Director rounded jointly to find out whether patients received business cards with hospitalists' photos and to hear about their experiences regarding physician interactions.

Hospitalist–Patient Communication: Hospitalist-Specific Questions in the Inpatient Satisfaction Survey: In an effort to get patient-satisfaction data for individual physicians, Northern California added three hospitalist-specific questions to the inpatient satisfaction survey. "Rate Dr X in the following areas: Dr X's skills and abilities; how well Dr X listened to you and explained what was being done and why; extent to which Dr X involved you or your family in decisions about your care." The degree to which the responses reflect Dr X's individual performance may be limited by the difficulty patients have remembering their physicians and distinguishing between hospitalists and other physicians.

Hospitalist–Patient Communication: Training Programs in Hospitalist–Patient Communications: Northern and Southern California have training programs in hospitalist–patient communications. In 2007, Santa Clara Medical Center in Northern California, held patient–clinician interaction training customized for hospitalists, followed by lunchtime sessions covering difficult patient interactions and use of the Four Habits²⁵—a patient–clinician communication model—at the bedside. In Southern California, a one-day training program for hospitalists covers difficult communications and effective use of the Four Habits. Hospitalists can practice their communications skills in front of an audience of their peers in scenarios with actors playing the role of patients and family members.

Hospitalist–Nurse Communications: Joint Nurse–Hospitalist Rounds: There are joint nurse–hospitalist rounds at West Los Angeles Medical Center. Morning rounds start by confirming the diagnosis and reviewing and completing Project BOOST's risk-assessment tool together. The nurse gives an update on the patient's progress and overnight events. The hospitalist and nurse then evaluate the patient in the room together using teach-back to review the diagnosis and plan of care with the patient. The hospitalist and nurse reconvene at the nurse's station to discuss the care plan for the day and for the remainder of the hospitalization, to clarify patient-education topics, and to review the discharge checklist.

Hospitalist Communications with Physicians in Other Services: Improving Communications Between Hospitalists and Emergency Department Physicians Through SBAR: ED physicians and hospitalists in Ohio had differing information needs in providing patient care. The two groups of physicians met to discuss their work and the information they needed from each other. They used SBAR to learn to communicate in the same way. The SBAR format helped them create a clear description of

what needed to happen and when for a smooth hand-off between the two services. As reported in 2006, the next step was to create a template of important criteria to enhance the basic SBAR tool and then to post this enhanced version of SBAR by each ED physician's phone for easy use when patients must be transferred.

Currently, SBAR's use has expanded beyond ED physician-hospitalist communication to other physician-physician conversations. In Ohio, hospitalists use SBAR for patient hand-offs at the end of rotations. The Hospitalist Chief finds SBAR useful when communicating with consultants, especially during the initial telephone conversation when it is important for hospitalists to clearly state information needs. Hospitalists communicate primarily with ED physicians, and "communications with KP ED physicians is superb; [we] get a complete diagnosis."

Hospitalist Communications with Physicians in Other Services: Service Agreements: KP Northwest has developed service agreements with 30 departments. Agreements include algorithms to determine in advance which patients are admitted to each service, the roles and responsibilities of each service in providing patient care, and timelines for consults and documentation. In addition to department-specific service agreements, there are higher-level service agreements that apply to all departments and focus on specialist communication with hospitalists. The Hospitalist Chief believes that the benefits resulting from these agreements have far outweighed the time invested in developing them.

Conclusion

Hospital medicine is mature in some aspects and still developing in others. The issues of sustainability and communications in coordinating care mentioned in the literature and by interview respondents are areas that are still under development.

Sustainability was interview respondents' top concern. As the specialty matures and the practitioners mature as well, they are seeking scheduling and workload strategies that will allow them to pursue hospital medicine as a career. Respondents indicated that their groups are moving to an 8- or 10-hour day with ideally a 12- to 15-patient panel. A more sustainable schedule and workload benefits patients, hospitals, and hospitalist groups. The deterioration of some aspects of care mentioned in the literature may be avoided or minimized by a sustainable workload, recruitment and retention will be less challenging, and there will be a larger cohort of hospitalists with the experience to develop best practices that contribute to their group's

success. Regarding comanagement and scope-of-practice issues, hospitalists have accepted responsibility for patient care during the time between discharge and first visit to the PCP and devised strategies to successfully manage transitions.

Communications in coordinating care was a concern with a slightly lower priority than sustainability for interview respondents. This is not surprising, because the literature shows that hospitalists spend a large proportion of their time communicating compared with nonhospitalists. Promising approaches have been developed for communicating with other hospitalists, patients, nurses, and physicians in other services. These include leveraging the electronic medical record to improve hand-offs; innovative rounding strategies to improve hospitalist-hospitalist, hospitalist-patient, and hospitalist-nurse communications; and using SBAR and service agreements to improve communications with physicians in other services. However, getting reliable feedback on patient-satisfaction surveys for individual hospitalists is a continuing challenge. Despite hospitalists' use of brochures and business cards to introduce themselves to patients and explain their role, there are difficulties in establishing a hospitalist-patient bond.

At KP and in the larger hospitalist community, greater attention is being focused on practice-management concerns affecting patient and hospitalist satisfaction that were not a central focus in the specialty's early years. KP hospitalists hope to accelerate the pace of innovation in these areas through interregional discussions at the Hospitalists' Forum. The Society of Hospital Medicine has established mentorship programs on transitions and comanagement to address some of these concerns. We are optimistic that hospital medicine will meet these challenges as it evolves. ❖

Disclosure Statement

The author(s) have no conflicts of interest to disclose.

Acknowledgment

Katharine O'Moore-Klopf, ELS, of KOK Edit provided editorial assistance.

References

1. O'Leary KJ, Williams MV. The evolution and future of hospital medicine. *Mt Sinai J Med* 2008 Oct;75(5):418-23.
2. Kaldy J. Proof positive. *The Hospitalist* [serial on the Internet] 2006 Feb 1 [cited 2011 Jun 23]: [about 4 p]. Available from: www.the-hospitalist.org/details/article/255871/Proof_Positive.html.
3. Nelson J. Who says 15 patients a day is the right number? [monograph on the Internet]. *The Hospitalist* 2009 Aug 1 [cited 2011 Jun 22]. Available from: www.the-hospitalist.org/details/article/288705/Volume_Variables.html.

4. Pinzer MS, Gurza E, Kristopaitis T, et al. Hospitalist–orthopedic co-management of high-risk patients undergoing lower extremity reconstruction surgery. *Orthopedics* 2009 Jul;32(7):495.
5. Henkel G. The patient has left the building: how long are hospitalists responsible for monitoring? *The Hospitalist* [serial on the Internet] 2008 Aug 1 [cited 2011 Jun 22]: [about 3 p]. Available from: www.the-hospitalist.org/details/article/186129/The_Patient_Has_Left_the_Building.html.
6. Kripalani S, Jackson AT, Schnipper JL, Coleman EA. Promoting effective transitions of care at hospital discharge: a review of key issues for hospitalists. *J Hosp Med* 2007 Sep;2(5):314–23.
7. Dudas V, Bookwalter T, Kerr KM, Pantilat Z. The impact of follow-up telephone calls to patients after hospitalization. *Am J Med* 2001 Dec 21;111(9B):265–305.
8. Powell S. Handoffs and transitions of care: where is the Lone Ranger's silver bullet? *Lippincott's Case Manag* 2006 Sept–Oct;11(5):235–7.
9. Pham HH, Grossman JM, Cohen G, Bodenheimer T. Hospitalists and care transitions: the divorce of inpatient and outpatient care. *Health Aff (Millwood)* 2008 Sep–Oct;27(5):1315–27.
10. Vasilevskis EE, Knebel J, Wachter RM, Auerbach AD. The rise of the hospitalist in California [monograph on the Internet]. City: Oakland, CA: California HealthCare Foundation; 2007 Jul [cited 2011 Jun 22]. Available from: www.chcf.org/~media/Files/PDF/R/PDF%20RiseHospitalistCalifornia.pdf.
11. O'Leary KJ, Liebovitz DM, Baker DW. How hospitalists spend their time: insights on efficiency and safety. *J Hosp Med* 2006 Mar;1(2):88–93.
12. Tipping MD, Forth VE, O'Leary KJ, et al. Where did the day go? A time–motion study of hospitalists. *J Hosp Med* 2010 Jul–Aug;5(6):323–8.
13. Arora VM, Farnan JM. Care transitions for hospitalized patients. *Med Clin North Am* 2008 Mar;92(2):315–24.
14. Solet D, Norvell JM, Rutan GH, Frankel RM. Lost in translation: challenges and opportunities in physician-to-physician communication during patient handoffs. *Acad Med* 2005 Dec;80(12):1094–9.
15. Victorian Quality Council. Clinical handover—results arising from a clinical handover survey circulated to all [monograph on the Internet]. Melbourne, Australia: Victorian Public Health Services; 2006 Jul [updated 2010 Sep 3] [cited 2011 Jun 22]. Available from: www.health.vic.gov.au/qualitycouncil/downloads/chfinal.pdf.
16. McLean K. Report to Victorian Quality Council: Clinical handover: the next steps [monograph on the Internet]. Melbourne, Australia: Victorian Public Health Services; 2008 Jun [updated 2010 Sep 3] [cited 2011 Jun 22]. Available from: www.health.vic.gov.au/qualitycouncil/downloads/ch_next_steps.pdf.
17. Arora V, Gangireddy S, Mehrotra A, Ginde R, Tormey M, Meltzer D. Ability of hospitalized patients to identify their in-hospital physicians. *Arch Intern Med* 2009 Jan 26;169(2):199–201.
18. Nelson J. Satisfaction scorecard: Use your HCAHPS results to educate, train staff to better serve patients. *The Hospitalist* [serial on the Internet] 2009 Jan 1 [cited 2011 Jun 22]: [about 3 p]. Available from: www.the-hospitalist.org/details/article/185989/Satisfaction_Scorecard.html.
19. Butterfield S. Striving for 100% customer satisfaction: hospital leaders debate costs, benefits of patient satisfaction surveys. *ACP Hospitalist* [serial on the Internet] 2008 Jul [cited 2011 Jun 22]: [about 4 p]. Available from: www.acphospitalist.org/archives/2008/07/cover.htm.
20. Society of Hospital Medicine. Project BOOST toolkit. Philadelphia, PA: Society of Hospital Medicine; © 2008. Available from: www.hospitalmedicine.org/ResourceRoomRedesign/RR_CareTransitions/html_CC/12ClinicalTools/01_Toolkits.cfm.
21. Wachter RM. The state of hospital medicine in 2008. *Med Clin North Am* 2008 Mar;92(2):265–73.
22. Iqbal Y. How “rules of engagement” can help bridge the divide between surgery and medicine: Surgical co-management veterans advise establishing ground rules early. *Today's Hospitalist* [serial on the Internet] 2007 Jun [cited 2011 Jun 23]: [about 5 p]. Available from: www.todayshospitalist.com/index.php?b=articles_read&cnt=145.
23. Apker J, Mallak LA, Gibson SC. Communicating in the “gray zone”: perceptions about emergency physician hospitalist handoffs and patient safety. *Acad Emerg Med* 2007 Oct;14(10):884–94.
24. Piturro M. Scheduling strategies: seven tried-and-true success stories. *The Hospitalist* [serial on the Internet] 2007 Apr 1 [cited 2011 Jun 23]: [about 4 p]. Available from: www.the-hospitalist.org/details/article/243709/Scheduling_Strategies.html.
25. Frankel RM, Stein T. Getting the most out of the clinical encounter: the four habits model. *Perm J* 1999 Fall;3(3):79–88.

A Strange Principle

It may seem a strange principle to enunciate
as the very first requirement in a hospital
that it should do the sick no harm.

— Notes on Hospitals, *Preface, Florence Nightingale, 1820-1910, celebrated English nurse, writer, and statistician*