Addressing Patient Safety in an Ambulatory Care Setting: The KP Georgia Region's Experience

By Yancy Y Phillips, MD
Thomas M Judd, MS, PE, CCE, CPHQ

Introduction

The 1999 Institute of Medicine (IOM) study, *To Err is Human,*[1] and its March 2001 follow-up report, *Crossing the Quality Chasm: A New Health System for the 21st Century,*[2] have heightened public awareness (and alarm) about errors in medical practice. These publications contained three main recommendations for all health care organizations in the United States:

- identify and learn from medical errors (omission or commission);
- create safety systems (change health care design) inside our organizations through implementation of safe practices at the health care delivery level; and
- transform the health care system to be evidence-based, patient-centered, and systems-oriented, initially by focusing on the top 15 to 25 most common chronic conditions.[1,2]

Much of the 1999 IOM report centered on processes that surround medication errors. The National Committee for Quality Assurance (NCQA)—the accrediting body for managed care organizations (MCOs)—has suggested that two main themes underlie the need for MCOs to improve patient safety: medication-related clinical errors and level of both continuity and coordination of care. These two areas are also a major focus of the Kaiser Permanente (KP) Medical Care Program, which serves more than eight million members nationally. As part of its Quality Improvement (QI) Plan, each KP Region was charged with developing a Patient Safety Plan for 2001-2003.

Each KP Region has a different model of care delivery. In KP Georgia, the Medical Group focuses on delivery of primary care and on selected core specialty services in full-service ambulatory centers. Non-Permanente physicians provide an important part of specialty care in the KP Georgia Region, which relies on two adult and one pediatric hospital in Atlanta to provide most inpatient care. KP Georgia's approach shows how a KP Region that focuses on ambulatory care has addressed the public's concern about patient safety in a meaningful, demonstrable, and measurable way.

Defining Patient Safety

An essential starting point for any group addressing an issue is to assure that everyone understands how the most critical concepts of the issue are defined. This common understanding is particularly necessary to change the focus of an organizational culture. Group members must "speak the same language" if their dialogue is to be successful.

The IOM defines safety as "freedom from accidental injury."[1:18] In a broader sense, the concept of patient safety obligates us to provide care in an environment that minimizes the number and seriousness of medical errors. Patient safety has three main requirements:

- a systematic approach to care delivery;
- reliable reporting of actual or potential medical errors and adverse outcomes; and
- the ability to implement or modify processes so as to reduce risk of medical errors.

The IOM further defines error as "the failure of a planned action to be completed as intended (ie, error of execution) or the use of a wrong plan to achieve an aim (ie, error of planning)."[1:28] Most of us think of medical error as deviation from an established standard of care. This definition includes but is not limited to:

- errors in decision making or that result from lack of general medical knowledge (eg, medication dosages) or lack of medical skill;
- errors that result from lack of knowledge about patient-specific information (eg, allergies); and
- errors that result from lack of communication regarding medical orders or procedures.

Medical errors rarely result solely from the action of an individual; instead, they usually occur in the context of faulty processes, faulty systems, or both. Bad outcomes are typically the result of a series of medical errors.

Patient Safety at KP Georgia

To address the issues raised in the IOM report, the KP Georgia Region's strategy has been to integrate patient safety into a solid foundation of quality improvement. This approach has led to a redesigned approach to three overlapping areas: quality of care, risk management, and peer review. We in the KP Georgia Region have developed explicit policy to guide our efforts, we have modified the structure of the QI Program to support change, and we have implemented some new key processes to accelerate change. This change includes several essential elements:

- establishing a multidisciplinary Patient Safety Task Force;
- promoting an organizational culture that enhances patient safety;
- developing structures designed to identify and address systemwide issues that affect patient safety;
- changing the process of peer review at the clinical department level; and
- engaging hospital partners in addressing issues of risk management, quality of care, and patient safety.

Most medical errors come to our attention only after an adverse outcome has occurred and been identified. The IOM defines an adverse event as "an injury caused

YANCY Y PHILLIPS, MD, (top) is the Associate Medical Director for Clinical Affairs for the Southeast Permanente Medical Group (TSPMG) and is Co-Chair of KP Georgia's Patient Safety Task Force. Dr Phillips joined TSPMG after serving 24 years in the Army Medical Corps in a variety of clinical, academic and leadership positions. A Master of the American College of Physicians, he is board certified in internal medicine, pulmonary diseases and critical care. E-mail: yancy.phillips@kp.org.
THOMAS M JUDD, MS, PE, CCE, CPHQ, (bottom) serves as Co-Chair of KP Georgia's Patient Safety Task Force. He has been Director of the Region's Quality Assessment, Improvement, and Reporting (QAIR) Department since December, 1994, and is project leader for NCQA Accreditation. KP Georgia currently holds NCQA Excellent status for its HMO and Medicare products. E-mail: tom.judd@kp.org.

by medical management rather than by the underlying disease or condition of the patient."[1:29] But not all medical errors result in adverse outcomes. Many thousands of medical decisions and actions are made daily in any hospital or clinic, and with each decision or action come many opportunities for mistakes. Some errors are both detected and corrected, allowing the patient—if lucky enough and resilient enough—to avoid a bad outcome. This situation probably represents most medical errors. One category of medical error, the "near miss," is defined as deviation from an established standard of care such that, if not prevented or corrected, is likely to result in clinically significant harm to one or more current or future patients.

The Patient Safety Task Force

Although much attention has focused on administration of medication, the scope of medical errors includes all aspects of medical decision making and care delivery. A zero-defects health care environment is beyond human ability, but we nonetheless must provide systems and processes that minimize the likelihood of error in patient care. To separate patient safety initiatives from efforts to improve the overall quality of care is all but impossible: Elimination of medical error is an essential part of any attempt to optimize positive outcomes for patients. Thus, in the KP Georgia Region, we have made patient safety one of our three organizational QI priorities for 2000 and 2001 while making every effort to integrate patient safety into our existing system of quality improvement. Instead of constructing parallel structures, we achieve this integration by modifying that system when necessary.

Even before this special priority was established, the KP Georgia Region already had a successful multidisciplinary Continuity and Coordination of Care Committee actively working to realize many important QI opportunities. The focus of that committee was threefold:

- to improve bonding of members with their primary care practitioner (PCP);
- to improve the flow of information from specialists, hospitals, nursing homes, and home health agencies to the PCP; and
- to improve communication to affiliated network PCPs.

Despite the existence and good work of this committee, however, we needed a group that could focus on medication errors and on other general issues of patient safety.

In response to this need, the KP Georgia senior leadership chartered a multidisciplinary group, The Patient Safety Task Force (Table 1) that reports to our core quality committee, the Quality Forum. The Patient Safety Task Force consists of senior leadership from both The Southeast Permanente Medical Group (TSPMG) and the Kaiser Foundation Health Plan (KFHP)

Table 1. Members of the KP Georgia Region Patient Safety Task Force

Member	Organizational Position	Task Force Role
Co-Chairs:		
Yancy Phillips, MD	Associate Medical Director for Clinical Affairs, TSPMG	Senior leadership liaison
Thomas Judd, MS, PE, CCE, CPHQ	Director, Quality Assessment, Improvement, and Reporting (QAIR), TSPMG	Quality improvement
JD Adams	Director, Risk Management, KFHP	Risk management liaison
Lemuel Arnold, MD	Assistant to Medical Director, Legislative Affairs, TSPMG	Legislative and political environment
Debra Carlton, MD	Associate Medical Director for Primary Care, TSPMG	Continuity and coordination of care; primary care operations
Diane Chamberlain, RN, MS	Manager of Health care Operations, KFHP	Nursing services and clinic operations
Carole Gardner, MD	Co-Chair, Pharmaceutical & Therapeutics Committee, TSPMG	Pharmaceutical policy and practice guidelines
Bernard Klein, MD, MBA	Chief, Quality Assessment, Improvement, and Reporting (QAIR), TSPMG	Quality improvement and accreditation
Leslie Litton, RPh, MHA	Executive Director Health care Operations, KFHP	Pharmacy operations
Nan Maddox, RN, BS	Director, Environmental Health and Safety, KFHP	Environmental safety and member education
Carrie Sprenkle, RN, BSN	Senior Quality Project Coordinator (QAIR), TSPMG	Quality systems in affiliated network
Susan Tischler, RN, MS	Regions Outside California (ROC) Infection Control and Employee Health Specialist, KFHP	Environmental safety
Robert van der Meer, MD	Chief, Risk Management, TSPMG	Peer review and hospital liaison

and is cochaired by the Associate Medical Director (with oversight of quality programs) and the Director of QI Programs. The KP Georgia Region's most senior pharmacy and nursing professional leaders are key participants in the task force, which also includes:

- a liaison from the Continuity and Coordination of Care Committee;
- the chief of environmental health and safety;
- the risk management director;
- a representative of affiliated care (network operations); and
- the medical group's physician legislative liaison.

As its first action, the task force set out to identify existing systems and processes within the KP Georgia Region that were already effectively promoting patient safety. Cataloging our strengths enabled us to identify opportunities for improvement. We analyzed these strengths and opportunities by grouping them into three areas:

- **Practitioner performance.** Key strengths among our practitioners were 1) decision support, enabled by accessing our data warehouse for patient-specific information before each visit, 2) use of the Population Care Registry for population management and for individual care initiatives, 3) local development and publishing of clinical practice guidelines, and 4) deployment of hospitalist teams at our core adult hospitals.
- **Nursing standards and competencies.** Our strengths in nursing practice included 1) KP Georgia Regionwide standardization of procedures and competency evaluations, 2) a series of semiannual internal site surveys, and 3) KP Georgia Regionwide processes of peer review and quality improvement.
- **Pharmacy system practices.** Our main pharmacy-related strengths were 1) strong physician-pharmacist linkage through our Pharmacy and Therapeutics Committee, 2) internal monitoring of dispensing irregularities, 3) the success of our outpatient anticoagulation service, and 4) the centralized pharmacy database connecting our ten medical centers and containing records for 93% of all member prescriptions.

The opportunities we identified form the basis of our future work plans. Our near-term patient safety initiatives will focus on improved use of conscious sedation in our ambulatory centers, processes of medication storage and administration, legibility of physician orders, and interaction with core contracted hospitals.

Creating a Culture of Patient Safety

A popular axiom is that "culture eats strategy for lunch." In other words, no major change can be effective unless it is supported by the organizational culture. Moreover, the organization's leaders must act as catalysts for this change. In the KP Georgia Region, both the President of KFHP and the Medical Director have taken a strong stand on patient safety. Their joint policy statement outlines the challenge to the entire KP organization:

> Patient safety is an integral component of Kaiser Permanente's mission to provide high-quality health care. Our members and the general public equate patient safety with quality. Consequently, all Health Plan and Medical Group employees and our contracted affiliates have a responsibility to promote and improve patient safety. A focus on patient safety should guide groups and individuals in all aspects of health care delivery and should be the cornerstone of our quality improvement and risk mitigation initiatives. We will integrate patient safety into the fabric of our organization. Our commitment includes:
>
> - Fostering a strong organizational focus on patient safety, embracing error reduction as a shared core value;
> - Creating an environment that encourages responsible reporting of near misses and errors and that looks first to fix systems and not to assign blame;
> - Establishing priorities that direct resources to the implementation of patient safety performance improvement strategies;
> - Identifying, sharing, and implementing best practices from other parts of the organization and other industries;
> - Encouraging members to be aware of their role in maintaining a safe environment;
> - Partnering with our core hospitals to promote patient safety in the inpatient setting;
> - Providing regular patient safety and error prevention training and education for individuals and groups; and
> - Implementing relevant and meaningful monitoring and reporting of indicators and outcomes that will guide continuous improvement (C Kenny and BC Perry, MD, personal communication, December 22, 2000).[a]

The KP organizational culture includes our health plan members; they too have a role in patient safety. We encourage our members to be active participants in all aspects of their health care—including patient safety. Safety-related information is available on the KP Georgia Web site, and we also include regular features on patient safety in our prevention-oriented member publication, *Partners in Health*, which is mailed to members. The Fall 2000 issue of that publication described 20 tips for preventing medical errors; these tips are available also on the Web site of the Agency for Healthcare Research and Quality.[3]

The Patient Care Assessment Committee (PCAC)

To better integrate the overlapping areas of quality improvement, risk management, and peer review, we established a new systems-integrating structure, the Patient Care Assessment Committee (PCAC). The PCAC's role is to assure use of a systems approach for analyzing medical errors. The PCAC disseminates learnings from such events and assists in instituting the changes necessary to prevent future errors. The PCAC and its parent structure, the Quality Forum, are the critical organizational elements in the KP Georgia Region's commitment to fostering an environment that promotes patient safety.

By both its charter and its membership, the PCAC is a medical review committee formed to evaluate and improve the quality of health care provided by TSPMG and KFHP employees and contractors. The PCAC assists in determining whether health care rendered to KFHP members was professionally indicated and was delivered in compliance with applicable standards of care. In addition, in its capacity as part of the peer review process, the PCAC gathers and reviews information relating to the care and treatment of patients; this function is undertaken to evaluate and improve the quality and efficiency of health care rendered and to reduce rates of morbidity and mortality. Accordingly, the PCAC is afforded the confidentiality protections provided by Georgia law to peer review and medical review committees.

The PCAC is chaired by the TSPMG Associate Medical Director for Clinical Affairs with the Chief of Risk Management serving as vice-chair. Other physician members include the Chief Operating Officer, the chiefs of major clinical departments (medicine, surgery, pediatrics, behavioral health, obstetrics and gynecology, and after-hours clinics) as well as the Chief Medical Officer for affiliated care. Nonphysician members of the PCAC include key leadership from KFHP of Georgia: the Vice President for Operations, the Manager of Health Care Operations for Regional Clinical Services (chief of nursing services), and the Director of Risk Management. The TSPMG Supervisor of Peer Review Services and the Assistant Director of Quality provide essential support. The Chair may invite to any meeting any ad hoc members who are involved in issues that relate to quality of care or risk management. Guests are subject to the same confidentiality requirements that guide regular members.

The PCAC meets monthly. With one exception, the physician members are also members of the Credentials Committee, which meets at a different time during the month. This schedule brings together key physician leaders about every two weeks and provides a timely forum in which to address time-sensitive issues relating to quality of care.

The principal source of information relating to quality of care originates from departmental quality-of-care and peer review activities. Figure 1 outlines processes of evaluation and information flow relating to quality of care within the KP Georgia Region. The PCAC evaluates all cases in which a departmental peer review committee has issued a finding of clinically signifi-

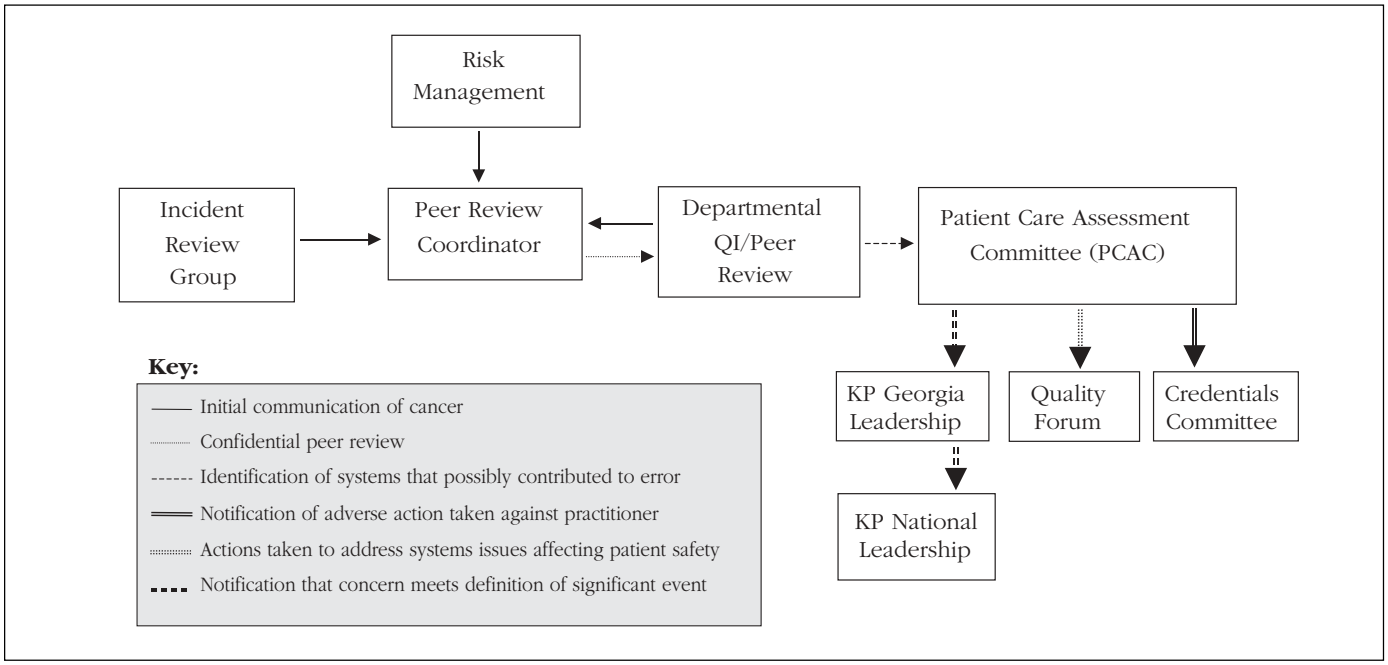

Figure 1. Flowchart illustrates processes (shown by arrows) through which Quality of Care concern is communicated and addressed in the KP Georgia Region. Initial notification of concern about quality of care (single solid-line arrows) can come from almost anywhere in the organization: from individual health care practitioners, other staff, or Health Plan members; through official channels from a risk management department or as a result of departmental review; or from the standing Incident Review Team. Peer Review Coordinator receives concern and is responsible for shepherding it through confidential peer review process (single dotted-line arrow). Departmental quality committees determine whether standard of care has been met. If a clinically significant breach of standard has occurred, departmental chief informs Patient Care Assessment Committee (PCAC) about actions taken regarding individual practitioner and identifies systems issues that may have contributed to error (single dashed-line arrow). Notification of adverse actions taken against practitioner is forwarded to the Credentials Committee (double solid-line arrow). PCAC works through the KP Georgia Region's quality integrating body (Quality Forum) to address major systems issues affecting patient safety (double dotted-line arrow). If PCAC concludes that case meets definition of Significant Event, PCAC reports this conclusion through KP Georgia Region leadership to KP National Program Office (double dashed-line arrows).

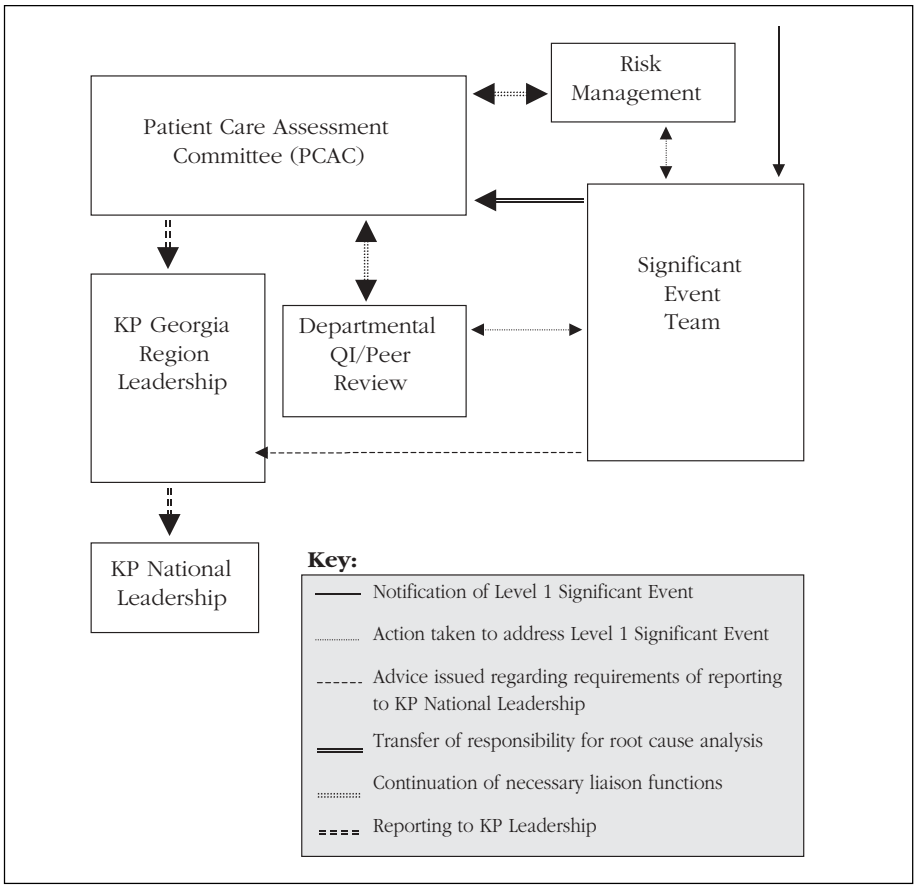

Figure 2. Flowchart shows process through which Level 1 Significant Event is reported and evaluated in KP Georgia Region. After Level 1 Significant Event is brought to attention of Significant Event Team (single solid-line arrow), ad hoc group of senior KFHP and TSPMG leadership is assembled to evaluate and address the situation. Significant Event Team works closely with regional risk management department concerned and with affected clinical departments to evaluate quality of care rendered and legal implications of case (single dotted-line arrow). Significant Event Team advises the KP Georgia Region leadership regarding requirements of reporting to KP National Program Office (single dashed-line arrow). Responsibility for root cause analysis and follow-up is transferred to PCAC (double solid-line arrow). PCAC continues necessary liaison functions (double dotted-line arrows) and reports to KP National Leadership through KP Georgia Region leadership (double dashed-line arrows).

cant deviation from the standard of care. The department chief presents a brief summary of circumstances, findings, and departmental actions taken with regard to the individual practitioner involved. The chief is then asked to address any generalizable issues of education or training, any process, and any structural issues in our delivery system that may have contributed to the error or bad outcome. Members of the committee advise the department chief on these issues and processes from the perspective of TSPMG and KFHP. In addition, reports of findings are sent to the PCAC from departmental peer review committees concerning all cases of interest to the KFHP Risk Management Department, regardless of whether departmental review has concluded that the standard of care was met.

The PCAC also plays a key role in evaluating and reporting Significant Events identified in the KP Georgia Region. In our revised quality structure (Figure 2), the PCAC advises the KP Georgia Regional leadership as to whether a case meets the definition of Significant Event as defined by the KP National Program Office and must therefore be reported. The PCAC also helps formulate and approves any root cause analysis for Level One Significant Events.

Chiefs of clinical departments are encouraged to bring to the PCAC any issues relating to quality of care. These issues may include (but are not limited to) discussion of specific health care practitioners, approaches to evaluation and correction of practitioner clinical performance, peer review policy, patient safety, and mitigation of risk. A chief who believes that a practitioner's action warrants corrective action may institute summary removal of the practitioner from clinical practice or use the PCAC to assure appropriate evaluation of all relevant factors. If an individual practitioner is discussed by name at a meeting of the PCAC, all nonphysician members of the committee are excused to assure confidentiality of the peer review process.

The PCAC's central role in patient safety is to identify errors or systems failures that may put future patients at risk to have adverse clinical outcomes. The current PCAC leadership may act directly on these errors or systems failures or may instead ask the Quality Forum to rank them appropriately among priorities for overall organizational quality improvement.

The Role of Peer Review

For years, the peer review system has operated under the premise that after a bad clinical outcome, the physician (the "captain of the ship") should be blamed for the event. The concept that the "ship" itself—the medical systems supporting the physician—should be evaluated for its contribution to the outcome has been embraced only reluctantly.[4] This pattern of blaming individual practitioners is understandable given several factors: intolerance of error, a theme that permeates medical training from medical school through residency; a tendency to view the physician as an autonomous decision maker; the closed, physiciancentric nature of the peer review system; and a lack of trust and common purpose—a deficiency that often separates hospital or insurance plan administrations (systems own-

ers) from the medical staff. This pattern of blaming individual practitioners often results in:

- a fragmented approach to identifying the structures and processes responsible for suboptimal clinical outcomes;
- assignment of blame to persons who may be poorly equipped to institute change in systems over which they have little or no power; and
- perpetuation of an adversarial peer review system avoided by practitioners instead of embraced by them as a tool to initiate systematic improvement.

KP Georgia has taken a new approach to peer review. Along with evaluating individual practitioners' performance, the new direction focuses attention on the support systems that may have contributed to an identified medical error. The approach requires departmental peer review committees to recognize structural or procedural issues that may have contributed to suboptimal clinical outcomes. Going one step further, the approach asks the group to identify changes to those structures and processes—or suggest new ones—to reduce the risk of such errors occurring in the future. The new approach to peer review is not intended to deflect responsibility from individuals; instead, the purpose is to evaluate medical errors in the context in which they occurred and to determine whether changes in the system of care can reduce the risk of future errors and poor clinical outcomes.

The next step in the QI process is for peer review committees to establish a dialogue with the owner(s) of the support systems where opportunities for constructive change have been identified. When suggested system changes are straightforward and require few or no additional resources, then improvements can be adopted rapidly and without controversy—but life is usually not that simple. Thus, the PCAC is charged with identifying and clarifying quality-related issues that affect more than one clinical department. Because the PCAC is composed of physicians and administrators from many disciplines, the committee can evaluate issues from different perspectives and can make determinations about relative costs and benefits, cross-functional impacts of proposed changes, and feasibility of proposals. The PCAC can also direct resources to high-priority issues and can remove barriers to change.

Our recent experience with a medical error illustrates how the system can work. A patient seen in a medical office for nonspecific complaints received a complete blood count (CBC) whose results showed extensive abnormality. Among the many abnormally high and abnormally low values reflected in the lengthy printout was included a critically low platelet count that the reviewing physician did not notice. Customary peer review of this event would have ended by blaming the attending practitioner for this missed laboratory value. Application of the new peer review procedure did acknowledge individual responsibility, but members of the PCAC also saw several opportunities for improving the CBC report to minimize the risk of similar oversights happening in the future. Suggestions included changing the order in which CBC results are displayed: Platelets are now listed above all the derived RBC indices and white blood cell differential. In addition, the KP Regional Laboratory's Director changed the clinical laboratory's reporting systems so that all critical values are printed in bold font and are displayed on the computer in highlighted text. These simple, low-cost changes affirmed the benefit of asking, "How can we make it more difficult for this mistake to happen next time?"

Coordination with Hospital Partners

In late 2000, the quality and risk management leadership of the KP Georgia Region began meeting regularly with their organizational counterparts in our core hospitals to review our comparable quality and risk structures and to strengthen communication regarding sentinel events (significant events), peer review, and patient safety.

We discussed our need for continued, timely notification of clinically significant adverse events that occur at these hospitals and that affect our practitioners or Health Plan Members. We identified and defined likely events of mutual interest, such as anything that could be considered a potentially compensable event, a sentinel event as defined by the Joint Commission on Accreditation of Health Care Organizations (JCAHO), or an event that results in unexpected mortality or major morbidity. We agreed that, whenever care provided at their hospital might be an issue, we would apprise our hospital partners of clinically significant events that we investigate. We asked to participate in their root cause analyses of JCAHO-defined sentinel events or other quality concerns involving our members or practitioners when this participation is mutually agreeable.

We also discussed how we wished to continue the positive relationships we had with our hospital partners through our TSPMG practitioners and how we would continue to support our physicians' participation in our hospital partners' key medical staff committees. In addition, we discussed our expectation for regular contact between the risk management departments of our two organizations regarding specific adverse events and that we would like semiannual meetings of QI and risk management leaders to ensure that we share concerns and activities of mutual interest.

We invited our hospital partners to join us in looking for opportunities to collaborate on activities relating to patient safety and quality improvement and to keep our dialogue open—a way to meet the needs of both entities. For example, we shared a model policy on verification and identification of operative procedure and site and side as a means of developing mutual understanding and practices for this important safety issue. We are working to ensure that similar administrative procedures are in place in all hospital areas where high-risk medical procedures are done, and we have encouraged the hospitals to complement their current occurrence-reporting system with a program of direct observation.

We have also begun a dialogue with these key hospital partners around the Leapfrog Group's[5] initiatives on patient safety: com-

puterized physician order entry, evidence-based hospital referral, and physician staffing in the intensive care unit (ICU). Our three core hospitals are among the highest-volume centers in Atlanta, and the KP Georgia Region currently meets the intent of evidence-based hospital referral. However, as is true across the country, the other two initiatives are more easily suggested than realized. Implementation of computerized physician order entry represents a substantial cost to hospitals and perhaps an even greater cultural change for the medical staff. Our hospital-based practitioners are likely to be "early adopters" of this system of order entry, and we are working with hospital leadership to identify methods of mutual support for using the electronic medical record. The KP Georgia Region is several years away from deploying the KP Computer Information System (CIS), but linkage between hospital and outpatient electronic records is highly desired.

The Leapfrog Group's initiative concerning the role of intensivists in managing critically ill patients envisions closed ICUs.[6] This system is in place in our pediatric contracted hospital but is not feasible in the adult facilities. Outside the academic medical centers, few physicians have the requisite extra training in critical care medicine to implement such a system. At present, many practitioners believe that critical care medicine is within the scope of many surgical and medical specialties. We believe that the KP Georgia Region has met much of the intent of this initiative through use of dedicated hospitalist teams in our adult hospitals. The teams are in-house seven days per week, and 24-hour coverage is provided by contracted hospitalists. To better meet the needs of critically ill patients, we are pursuing Fundamental Critical Care Support (FCCS) certification for our hospital-based physicians. Having a core clinical group focus on care of patients in the hospital and in the ICU is an important way to reduce variability of practice and to ensure timely response to emergencies—two underlying tenets of the Leapfrog Group's ICU initiative.

Summary

The KP Georgia Region has used the momentum and energy generated by the current national focus on patient safety to restructure our approach to three overlapping areas: quality improvement, peer review, and risk management. Efforts to change the organizational culture will require more time than has been required to change committee mandates, but we have taken the first steps in this worthwhile effort. ❖

[a] Carolyn Kenny, President, Kaiser Permanente of Georgia; and Bruce C Perry, MD, Medical Director of The Southeast Permanente Medical Group, Regional Offices, Atlanta, GA.

References

1. Kohn LT, Corrigan JM, Donaldson MS, editors. To err is human: building a safer health system. Washington: National Academy Press; 2000.
2. Institute of Medicine, Committee on Quality of Health Care in America. Crossing the quality chasm: a new health system for the 21st century. Washington: National Academy Press; 2001.
3. United States. Agency for Healthcare Research and Quality. 20 tips to help prevent medical errors: patient fact sheet. Rockville (MD): Agency for Healthcare Research and Quality; 2000. (AHRQ Publication No. 00-PO38) Available on the World Wide Web (accessed May 11, 2001): http://www.ahrg.gov/consumer/20tips/htm.
4. Gunn IP. Patient safety and human error: the big picture. CRNA 2000 Feb;11(1):41-8.
5. Purchasers' group "leapfrogs" to quality. Healthc Benchmarks 2001 Apr;8(4):44-5.
6. Young MP, Birkmeyer JD. Potential reduction in mortality rates using an intensivist model to manage intensive care units. Eff Clin Pract 2000 Nov-Dec;3(6):284-9.

Jazz

Jazz is the way America will look when it gets itself together.

Wynton Marsalis, Jazz performer and composer, winner of the 1997 Pulitzer Prize for music, quoted in the documentary "Jazz," by Ken Burns