# Creating a Culture of Safety in Your Practice

Redesigning medical practices to create a culture of safety is a complex but essential undertaking, which patient safety experts describe as the core of meaningful medical error reduction.

A culture of safety is a "just culture," says Julie Morath, chief operating officer for Children's Hospitals and Clinics in Minneapolis/St. Paul, and a board member of the National Patient Safety Foundation in McLean, Va. Instead of blame and punishment for mistakes, there is "robust reporting and transparency." While instances of malfeasance and disruptive behavior must be dealt with swiftly and fairly, the focus of a transformed culture is on systems of care that lead to errors, rather than individual acts, she adds. "Errors are used as a data source," and there's a "continual quest for things to be better. [Practitioners] are constantly vigilant and paying attention to detail from a process perspective."

Medicine's cultural revolution encompasses every facet of operations that impact clinical care and challenges the processes, roles and hierarchies that traditionally govern care delivery. Doctors are increasingly encouraged to transform practice patterns, communication techniques, administrative tasks and staff relationships in an effort to approach patient safety from a new perspective.

"No one comes to work saying, 'Today's the day I am going to make the mother of all errors,'" says Suzanne Graham, patient safety practice leader for Kaiser Permanente's California regions. "These are knowledgeable, competent people who are set up by systems in their organization" to make an error.

Kaiser, which has drilled deeply into its own culture and practices to improve safety and is widely viewed as a leading organ-

ization in the patient-safety movement, has found from its own experience and from literature reviews that "at least 80 percent of medical errors are system errors," says Ms. Graham.

Kaiser has focused intently on improving teamwork and com-

## Physicians Report Problems in Test-Result Follow-Up

Delays in reviewing test results are common, and many physicians are not satisfied with how they are able to manage test results, according to an article in the Nov. 8, 2004, issue of the Archives of Internal Medicine.

Failure to follow up with patients about their test results is a patient safety and malpractice concern, and lack of timely follow-up can jeopardize patient safety and satisfaction, says the study's author, Dr. Eric G. Poon of Brigham and Women's Hospital in Boston. Dr. Poon and colleagues attempted to identify problems in current test-result management systems and developed possible alternatives for improving these systems.

The researchers surveyed 262 physicians (64 percent response rate) working in 15 internal medicine practices affiliated with two large, urban teaching hospitals. Physicians were asked about specific systems they used to manage test results and how much time they spent managing test results.

Of the physicians who completed the surveys, 83 percent reported at least one delay in reviewing test results during the previous two months. "Despite reporting that they spent on average 74 minutes per clinical day managing test results, only 41 percent of physicians reported being satisfied with how they managed test results," the article states. Physicians most wanted to help with developing tools to help them generate result letters to patients, prioritize their workflow and track test orders through to completion.

"Our survey findings suggest that significant problems exist with test result management systems in primary-care physicians' offices," the authors write. "The high frequency of reported delays is important since self-reporting typically significantly underestimates the true incidence of errors. The relationship between self-reported delays and dissatisfaction suggests that physicians also recognized delays in test result review as a significant problem affecting quality of care and patient safety. While our survey did not directly characterize the clinical importance of these delays, the fact that physicians 'wished they had known about' these results earlier strongly suggests that many of these results might have changed patient management."

munication among practitioners and staff, which are critical to error-free care but typically omitted from medical training programs, she adds. Doctors, nurses, pharmacists and other medical professionals are "trained in silos," rather than as a team, Ms. Graham says. Furthermore, "we are all trained to deliver error-free care all the time," and the expectation of perfection exacerbates the inclination to blame individuals for errors, she adds.

Systems "that don't rely on anyone's memory" are essential, says Dr. Lucian Leape, adjunct professor of health policy at Harvard School of Public Health in Boston and a member of the IOM panel that produced the landmark study on medical mistakes, "To Err Is Human."

"One thing we've learned from redesigning systems is that a big weak link is the human brain," Dr. Leape says. In the absence of a carefully crafted system of care, medical professionals rely on their memories to ensure that nothing fall through the cracks, but the reality is that people often think their recall is better than it is, and "things get forgotten," Dr. Leape says.

He suggests that doctors target at least two areas for system improvements, the first of which is medication prescribing. "Doctors should do everything they can to get prescribing computerized, even before they get a computerized patient record," Dr. Leape says. "[Prescribing] programs now can be run on laptops or Palm Pilots, and ought to become standard," he adds, citing a study that found a high rate of medication errors in ambulatory settings.

The study, led by Dr. Tejal Gandhi at Brigham and Women's Hospital in Boston and published in the April 17, 2003, edition of The New England Journal of Medicine, found that one-quarter of 661 outpatients who were surveyed had an adverse drug event (ADE) during a three-month period, a rate about four times as high as that reported in studies of inpatients. Thirty-nine percent of the ambulatory ADEs were due to the physician's failure to respond to symptoms reported by the patient, the patient's failure to report symptoms to the doctor or prescribing errors. One third of the ADEs related to prescribing errors could have been prevented by the use of computerized prescribing, the authors said.

A second area in which doctors should "develop fail-safe sys-

tems" is the tracking of patients who have tests or consultations, Dr. Leape says. Doctors need to know that the order was followed, that the results were returned and that the patient was notified of the results, he says. "It's not difficult to do but it doesn't happen by itself," Dr. Leape says. "Even if it's a paper system [overseen] by the secretary, there needs to be a system that doesn't depend on anyone's memory."

"Many physicians subscribe to a 'culture of individual accountability' that can inhibit the development of greater teamwork and be a barrier to achieving risk and error reduction through process and systems improvement as well as through improvement in individuals' knowledge and skills," said a summary of a 2002 conference on

> **Medicine's cultural revolution** encompasses every facet of operations that impact clinical care and challenges the processes, roles and hierarchies that traditionally govern care delivery. Doctors are increasingly encouraged to transform practice patterns, communication techniques, administrative tasks and staff relationships in an effort to approach patient safety from a new perspective.

ambulatory patient-safety research, hosted by the Englewood, Colorado-based Medical Group Management Association (MGMA). "Physicians who believe that safety depends primarily on acceptance of individual responsibility and that adverse events are usually the result of individual error will not readily perceive opportunities to improve safety by improving processes and systems, or by greater teamwork and shared responsibility and authority."

## Understanding Systems

The American College of Physicians' (ACP) seven-module patient safety curriculum, which is available on its Website (*www.acponline.org*), defines a system as "any collection of components and the relations between them, whether the components are human or not, when the components have been brought together for a well-defined goal or purpose."

In medicine, the fundamental system components are "individuals, policies and technologies and the processes and relationships that govern these interactions," says ACP's module on systems. "Only when these three components are integrally re-

lated to each other and with each other do we have a relatively error-free system."

To illustrate how system breakdowns contribute to medical errors, ACP gives a series of examples. In one scenario, a physician sends a patient for a CT of the abdomen without IV contrast. The order reads "CT of abdomen w/o contrast." The radiology department has difficulty reading the doctor's handwriting, and without double-checking the order with the office concludes that it says "w/contrast." Furthermore, the hurried doctor had failed to write the diagnosis CRF (chronic renal failure) on the order sheet, which shows a diagnosis of abdominal pain only. As a result, the radiology department does ask about allergies to the IV contrast and to shellfish, but the patient receives no post-procedure monitoring for hydration.

ACP identified several system breakdowns in this example:

■ The radiology department didn't reconfirm the order (lack of communication).

> **"Physicians who believe** that safety depends primarily on acceptance of individual responsibility and that adverse events are usually the result of individual error will not readily perceive opportunities to improve safety by improving processes and systems, or by greater teamwork and shared responsibility and authority," says the Medical Group Management Association.

■ The secondary diagnosis of CRF was omitted (lack of communication).

■ The patient could not help clarify, because there had been no briefing on what to expect (lack of communication).

Verbal and written communication failures contributed to the problem, and fixing any one of them might have averted the safety lapse, says ACP's prepared instructional script. The text encourages participants to think of preventing future errors by making changes to the system, as opposed to the more limited and ultimately ineffective remedy of personally vowing to be more careful next time.

The lessons—or "take-home points," as ACP calls them—from this scenario are: "efficiency without due process defeats itself; use your patients as allies of information control; print rather than hand-write orders, and do not use abbreviations."

These take-home points are designed to be simple tools that

physicians can apply immediately in their practices, says Christel Mottur-Pilson, Ph.D., director of scientific policy for the ACP. The organization developed a multitude of errors scenarios for each of the curriculum's seven modules, and worked closely with physicians in the planning stage to ensure that the cases "made sense to them and exemplified the problem areas we are trying to address," says Dr. Mottur-Pilson. "We are also trying to show the complexity in the causes of errors," she adds. "One slip in a chain of events doesn't have to lead to an error."

In a second example, the wife of the 75-year-old man taking a high dose of prednisone for "bullous pemphigus" calls to report that her husband is sick. The receptionist takes no further information from the caller and passes the message to the nurse manager, who asks the file clerk to retrieve the chart. The busy clerk forgets about the request, and the message is soon buried in other paperwork on the desk of the nurse manager, who forgets to call the patient back. The next day the doctor finds the message while looking for a patient's chart and calls the patient to find that the man can't get out of bed and is confused. The patient is transferred to the hospital, where he dies of septic shock.

The system breakdowns identified by ACP in this example were the following:

■ **Receptionist training.** The receptionist did not ask critical questions, establish the diagnosis and medications the patient was taking, or convey the urgency of the situation. ACP suggests using a call sheet to record important information when patients call the office, including background, such as a diagnosis if known, current medications and whether the patient is experiencing fever, pain, confusion, loss of consciousness or bleeding.

■ **Nurse manager's lack of filing system to track information.** "There should be dedicated receptacles for various tasks to be performed," such as test follow-ups, things to do today and at a later time, and requests for pull charts, ACP says.

■ **Clerk's lack of organization.** The clerk should carry a notepad to write down requests as they occur, and check them off as they are completed.

■ **Spouse's lack of assertiveness,** which prevented her from calling back when she did not hear from the doctor. ACP suggests giving a copy of the same call sheet used by receptionists to pa-

tients, to remind them that when they call the office with a complaint, it is helpful to be prepared with basic information.

ACP offered the following take-home points from this case: use a telephone check sheet; meet with each member of the office team to come up with ideas about how to avoid the situation again, and organize messages according to urgency.

"The notion of systems thinking is a different way of approaching the world," says Dr. Robert Wachter, chief of the medical service at the University of California San Francisco Medical Center and author of Internal Bleeding: The Truth Behind America's Terrifying Epidemic of Medical Mistakes (Rugged Land, 2004). "It is not natural for doctors at all."

Physicians are trained to value "individual virtuosity, so if something goes wrong, someone screwed up," he adds.

To foil that mindset, Dr. Wachter advocates performing a "root-cause analysis" on every error. The process involves disentangling all the factors and circumstances that contributed to the mistake and identify flaws in the system. The analysis challenges medical professionals and office staff to look at an error "as an opportunity for learning," Dr. Wachter says.

A root-cause analysis helps uncover how an error occurred so that it can be prevented in the future and removes doctors and other medical staff from the pitfall of blaming individuals, Dr. Wachter adds. The analysis may show that, in the end, someone was at fault. But the objective of the exercise is to understand the system surrounding and underlying the mistake, and figure out how to redesign that system to catch similar errors in the future.

"It's a transformative way of thinking," says Dr. Wachter.

## Building Teamwork

Putting in place new and effective systems to ensure patient safety requires that doctors work as a team with nurses, office staff and other providers involved in care delivery, safety experts say. Teamwork involves unraveling the traditional hierarchy in which doctors stand above other professionals, to create an environment in which any member of the team is comfortable raising safety concerns or making suggestions to avoid a potential error.

"The physician is the captain of the ship, but unless he is approachable people are not going to work as a team, and are not going to save that physician from a career-defining moment," says Kaiser's Ms. Graham. In most cases when an error occurs, "someone knows something is going to happen, but for one reason or another nothing is said," says Ms. Graham.

Teamwork and efficient systems go hand-in-hand, and together have the potential to improve both the quality of care and patient satisfaction, according to a report on the impact of teamwork in primary care. The report, authored by Dr. Kevin Grumbach at the University of California and Dr. Thomas Bodenheimer at San Francisco General Hospital, defined a team

## Mitigating Medical Errors: Strategies for Primary-Care Practices

■ **Pay a little more and hire a great staff.** Look for a positive attitude, good communication skills and established teamwork skills. Conduct thorough orientation and training for new hires.

■ **Invest in new technologies today.** Take steps towards building an advanced information system. Start with a handheld computer and e-mail communications with patients. Later, consider clinical decision support programs and electronic medical records.

■ **Standardize and simplify as much as possible by:**
 ✔ Establishing patient tracking/follow-up systems for missed appointments and periodic health screenings.
 ✔ Developing office flow sheets and checklists to standardize care delivery.
 ✔ Following evidence-based medicine.
 ✔ Establishing prescription-writing standards.

■ **Create a culture of healthcare safety** in your practice by:
 ✔ Empowering and motivating staff to report errors.
 ✔ Conducting office-wide workshops about error identification and quality and safety improvement.
 ✔ Looking continuously for weak links and anticipating errors before they occur.

■ **Listen to patients.** Collect data on patient satisfaction and ask patients what they need. Then design services to meet those needs.

*Source: California Academy of Family Physicians, Diagnosing and Treating Medical Errors in Family Practice.*

as "a group with a specific task or tasks, the accomplishment of which requires the interdependent and collaborative efforts of its members." Published in the March 10, 2004, Journal of the American Medical Association, the report contrasts the workflow in practices with high and low levels of teamwork.

In one of the illustrative practices, owned by Dr. Burger in Bangor, Me., two physicians and two nurse practitioners work with a complement of medical assistants, greeters, receptionists and schedulers, who comprise a "smoothly functioning pri-

## Perceptions About Error Prevention

In a national study of consumers' perceptions about patient safety and healthcare quality, the vast majority (74%) of the respondents said that at least half of the deaths caused by medical errors were preventable.

How many deaths attributable to medical error could be realistically prevented?
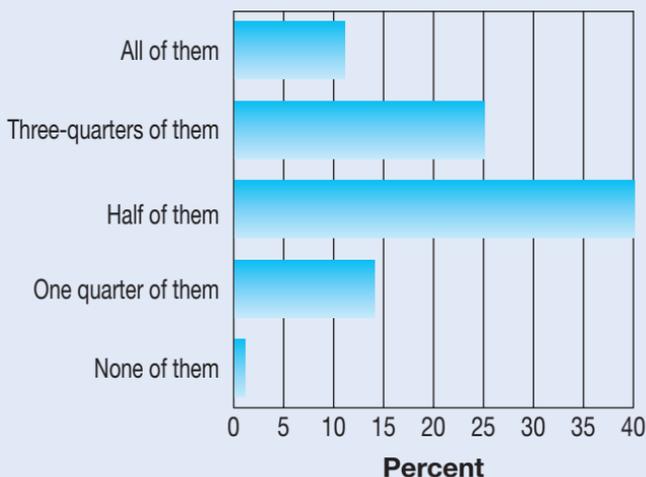


Source: Kaiser Family Foundation / Agency for Healthcare Research and Quality / Harvard School of Public Health National Survey on Consumers' Experiences with Patient Safety and Quality Information, November 2004 (Conducted July 7–September 5, 2004).

mary-care team." The practice is described as financially stable and busy, with each clinician seeing 23 to 30 patients per day. To demonstrate how the team model works, the report gives a scenario in which a patient calls the office complaining of recurrent abdominal discomfort after eating. The receptionist consults a computerized triage protocol and tells the patient to come in that same day. When the patient arrives, a greeter who is already aware of the problem gives her a questionnaire related to abdominal pain. The patient then meets with the medical assistant, who checks vital signs and enters her responses to the questionnaire into the computer. The doctor reviews the history, performs a physical exam and consults a diagnostic software program. The physician discusses options with the patient, and together they decide on a treatment plan. The patient then meets with a scheduler, who arranges laboratory and ultrasound tests.

"All clinical processes in Dr. Burger's office are guided by a system," the report says of this model practice. In contrast to most primary-care offices, the receptionist has been trained to use a computerized tool that helps to triage every patient who calls the office. Communication and clinical care are tightly organized. In addition, "goals and performance measures are communicated to all staff by posters prominently displayed in the office," the report says.

Dr. Burger's practice reflects five key elements of team building, the authors say: clear goals with measurable outcomes, clinical and administrative systems, division of labor, training and communication.

The end result is not produced without an investment, the authors point out. Unlike most primary-care offices, where staff training consists of a two-hour orientation, Dr. Burger's staff all attended a 15-week course in quality management at a nearby college, while the greeters, receptionists and schedulers—all of whom have been cross-trained—received an additional six weeks of in-office training.

Building "a cohesive primary-care team" begins with an assessment of the workgroup in the office, the authors say. The report, titled "Can Health Care Teams Improve Primary-Care Practice?" suggests a framework for team building that includes clear

clinical, business and work environment goals with measurable outcomes to assess improvements; a mix of personnel best suited to meet those goals; detailed systems to "routinize practice tasks," such as triaging patient calls, communicating laboratory and x-ray results and refilling medications, and clearly defined tasks and training for each team member.

One of the greatest barriers to team development is what the authors dub "the hamster."

"'Hamster healthcare'—the rapidly revolving treadmill upon which so many clinicians find themselves—creates a state of mental exhaustion that frustrates attempts at planning and coop-

## Standards for Healthy Work Environments

A set of national standards to promote skilled communication and collaboration among nurses and other healthcare providers was recently unveiled by the American Association of Critical-Care Nurses (AACN).

"Nurses must be as proficient at handling personal communication as they are in clinical skills," said Connie Barden, executive editor of AACN's "Standards for Establishing and Sustaining Healthy Work Environments: A Journey to Excellence." According to the standards, a culture of safety and excellence requires that individual nurses and healthcare organizations make it a priority to develop communication skills that are on par with expert clinical skills.

The standards for establishing and sustaining healthy work environments are the following:

■ **Skilled Communication.** Nurses must be as proficient in communication skills as they are in clinical skills.

■ **True Collaboration.** Nurses must be relentless in pursuing and fostering true collaboration with other members of the healthcare team.

■ **Effective Decision Making.** Nurses must be valued and committed partners in making policy, directing and evaluating clinical care and leading organizational operations.

■ **Appropriate Staffing.** Staffing must ensure the effective match between patient needs and nurse competencies.

■ **Meaningful Recognition.** Nurses must be recognized and must recognize others for the value each brings to the work of the organization.

■ **Authentic Leadership.** Nurse leaders must fully embrace the imperative of a healthy work environment, authentically live it and engage others in its achievement.

eration," the authors write. While it may be difficult for doctors to invest much time in team development, practices may benefit by incrementally building in one or more components of teamwork, the report suggests.

## Creating an 'Environment of Trust'

Preventing medical errors is a multi-dimensional undertaking with many core elements. Among the most critical components, safety experts say, is communication, the lack of which is widely considered to be the root cause of many errors.

"The overwhelming majority of doctor errors involve a communication error," says Ms. Graham of Kaiser. The quality of communication that flows between doctors and other medical professionals is a critical component of safety, experts say. A nurse or pharmacist who has had his or her "head chopped off is less likely to speak up when something goes wrong," Ms. Graham adds. The entire organization, therefore, has to be involved in backing up individual team members to empower them to be assertive when they see a potential safety problem, and assure them that they won't get into trouble, she says.

**Reviews in which staff** are encouraged to discuss safety risks and potential errors in a practice "can only take place in an environment of trust," says Dr. Robert Phillips, director of the Robert Graham Center. Otherwise, a nurse who is "lower on the totem pole" will be fearful of getting fired or chastised for pointing out a problem.

"Too often, improving workplace communication is seen as a 'soft' issue," says Kathy McCauley, R.N., Ph.D., president of the American Association of Critical-Care Nurses (AACN), which released a study in January 2005 that found that 84 percent of physicians and 62 percent of nurses surveyed said they had seen colleagues make mistakes, but only 10 percent ever spoke up. "We must build environments that support and demand greater candor among staff if we are to make a demonstrable impact on patient safety," she says.

The AACN study finds that seven categories of conversations are especially difficult for people in healthcare to master: broken rules, mistakes, lack of support, incompetence, poor teamwork, disrespect and micromanagement. In the study, which surveyed

more than 1,700 nurses, physicians, clinical-care staff and administrators, a significant number of those who witnessed persistent problems reported injurious consequences. For example, one in five physicians said they have seen harm come to patients as a result of these concerns, and 23 percent of nurses said they are considering leaving their units because of these factors. The study also found that the 10 percent of respondents who are confident in their ability to raise these concerns observe better patient outcomes and are more satisfied with their work.

**One of the most critical problems** in medical practices is that "pharmacists, nurses, doctors [and other practitioners] don't talk person to person," says Dr. Jon Allen of the University of North Dakota School of Medicine in Grand Forks. Instead, consultations and medical orders are transmitted by paper and e-mail messages from one person to another.

The culture in any setting, from a small physician's office to a large healthcare organization, should encourage and facilitate "routine reviews of things that happen that shouldn't have happened, and talk about how those things get fixed," says Dr. Robert Phillips, one of four co-authors of a study published in the July/August 2004 issue of the Annals of Family Medicine that found a strong link between communication and medical errors. Researchers who conducted the study analyzed 75 error reports from physicians, which described a total of 184 errors and found that communication errors were the root cause of 47 of the 75 incidents reported by the physicians.

Reviews in which staff are encouraged to discuss safety risks and potential errors in a practice "can only take place in an environment of trust," says Dr. Phillips, director of the Robert Graham Center for Policy Studies in Family Practice in Primary Care, an independent research arm of the American Academy of Family Physicians. Otherwise, a nurse who is "lower on the totem pole" will be fearful of getting fired or chastised for pointing out a problem, he adds. Meetings should take place "with implicit trust and a commitment to safety that overrides hierarchies and squabbles," Dr. Phillips adds.

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO), borrowing a safety procedure from the air-

line industry, now requires a "time out" before major procedures, such as surgery, Ms. Graham says. In the cockpit, the briefings give the crew a chance to review their destination, weather conditions and passengers with health problems who are on board, and sets the stage for any member of the team to voice concerns or make suggestions. In healthcare settings, the briefings, which take about 90 seconds, give the team the opportunity to review basic precautions, such as making sure they are working on the right patient and body part, and that all of the equipment needed is in place, Ms. Graham says.

In addition, the briefings get "communication and teamwork going," she adds. "Part of the briefing is making sure everyone on the team knows one another, and that starts opening it up for people to communicate with each other and know what the game plan is," so that they can anticipate errors before they occur.

At Kaiser, Ms. Graham says, this simple exercise has gone a long way toward closing the communication and teamwork gap between doctors and nurses, in particular.

"Doctors and nurses have a troubled partnership," Ms. Graham says. Kaiser found that when asked to rate one another on how well they worked together as a team, physicians gave high marks 80 percent of the time, while nurses gave a similarly high rating only 10 percent of the time, leaving a "huge gap" in perception about how well these two professional groups worked together, she says.

Furthermore, there is a link between the extent to which nurses feel that they are part of the team and their turnover rate, Ms. Graham says, referring to Kaiser's own experience and to research in other organizations, which has found much lower turnover in hospitals where nurses report feeling a valued part of the team. As a result, teamwork not only has a direct impact on a health-

### Risk Factors for Medical Errors

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|---|---|
| Unfamiliarity with task risk | x17 |
| Time shortage | x11 |
| Information overload | x6 |
| Misperception of risk | x4 |
| Inadequate checking | x3 |

*Source: American College of Physicians*

care organization's ability to improve safety, but also affects the continuity and cost of care. The cost of recruiting and training an ob/gyn nurse, for example, is close to $100,000. Retaining just one nurse, therefore, frees up substantial resources for other needs, Ms. Graham says.

At one Kaiser hospital, turnover among nurses dropped from 19 percent to zero after implementation of pre-procedure briefings, Ms. Graham says.

In a primary-care office setting, there may be many health professionals contributing to patient's care, forming a "de facto team," says Dr. Leape. The diabetic patient, for example, may have a physical therapist and nutritionist involved in his care, and physicians need to "interact in a productive, useful way," with those practitioners, he adds. Physicians are accustomed to the "telling everyone what to do," Dr. Leape says. "That's not the way teams work. Doctors need to break down the authority gradient," empower individuals on the team, and "respect what every member brings to it, even if it's an orderly or nutritionist," he adds.

"There is evidence that because doctors sometimes treat people in less-than-respectful ways, it interferes with patient safety," Dr. Leape continues. "One reason there is a nursing shortage is that we don't treat them very well."

## Applying Communication Skills

At the University of North Dakota School of Medicine in Grand Forks, Dr. Jon Allen, an internist and associate professor of medicine, is on a mission to teach the "the next generation of physicians to be better communicators," he says. "Communication is one link in the system," he says. Yet in the framework of the "Swiss-cheese model" of medical errors, communication is a hole through which "everything else goes," he adds. By communicating more effectively, physicians can close a hole and eliminate a wide range of errors.

One of the most critical problems in medical practices is that "pharmacists, nurses, doctors [and other practitioners] don't talk person to person," Dr. Allen says. Instead, consultations and medical orders are transmitted by paper and e-mail messages from one person to another. Problems arise when messages aren't read on time or are misinterpreted, Dr. Allen says. Communication be-

tween doctors and patients, doctors and nurses, doctors and their peers and paramedical staff "can all go awry and cause problems," he adds.

Dr. Allen uses common scenarios to teach communication skills to his students. In one scenario, a primary-care doctor orders a consultation with a gastroenterologist, transmitted in writing through the practice's appointment secretary. When the patient arrives at the office, it's not clear to the specialist that the referring physician wants a colonoscopy performed, to determine whether cancer might be the cause of blood in the patient's stool. The gastroenterologist agrees that the test should be performed

## How to Be a Good Listener

Learning to be a good listener can be enhance your relationships with patients and reduce your malpractice risk, according to The Doctor's Company, a national medical malpractice insurer based in Napa, Calif. The company offers the following tips to physicians on honing their listening skills:

■ **Do not allow distractions.** The physician's office environment permits interruptions that make it difficult to listen effectively. If possible, do not allow distractions that steal attention when communicating with a patient.

■ **Listen for more than facts.** Physicians are trained to home in on facts and figures when taking histories or examining patients. Consequently, doctors often fail to take into account the equally important emotions, behavior and intentions of the patient.

■ **Avoid excessive note taking.** Although taking notes is essential to obtaining a patient's history, it can distract your concentration and increase the patient's anxiety. Make eye contact with patients when they are speaking until a clear message is detected regarding the information. Jot down only important key words or phrases that can help you reconstruct the conversation.

■ **Do not be dismissive.** What your patient is saying demands your attention. If you tune out because you find the subject matter uninteresting, you may miss an important detail. Effective listening requires attention, patience and suppression of the urge to control the conversation.

■ **Do not allow emotion-laden words to arouse personal antagonism.** Certain words or phrases can trigger negative emotional reactions in the listener. For example, if you are told "you were just too busy for me," you're likely to feel antagonistic toward the person making the emotionally charged statement.

but awaits further orders from the primary-care physician. Three months later, the patient calls the referring doctor's office to ask what he should do next.

In this case, the primary-care physician should have written out the order and called the gastroenterologist, Dr. Allen says. An order and a message that said, "You'll be seeing my patient for rectal bleeding. Please perform a colonoscopy if appropriate," would have closed the "holes in the Swiss cheese" in five minutes, he adds.

In a second scenario, Dr. Allen gives the example of a doctor who hurriedly gives a medication order to a busy staff nurse. The medication is new on the market, difficult to pronounce and closely resembles the name of another drug. As a result, the nurse calls in the wrong drug to the pharmacy. The physician in this case "should have written [the order] legibly," and asked the nurse to send it to the pharmacy, instead of giving verbal orders to a nurse who may not be aware of new medications, Dr. Allen says.

Kaiser, meanwhile, is applying a unique method to bolster physician-nurse communication. When the organization drilled further into teamwork and communication patterns, it discovered

## Low-Tech Drug Safety Tips

The American College of Physicians' "take-home points" from its extensive seven-module patient-safety program recommends a wide range of low-tech strategies for improving medication safety, including:

■ Always consider patient-specific information, such as disease states, lab test results, allergies, concurrent medications and pregnancy.

■ Do not use abbreviations. Spell out the names of drugs and all confidentially related instructions.

■ Avoid the use of decimals.

■ Educate patients about their medications, including the name of the drug, its dose and frequency, potential side effects and adverse reactions.

■ Use caution with look-alike and sound-alike medication names.

■ Report medication errors confidentially to the Medication Errors Reporting Program operated by the Institute for Safe Medication Practices and United States Pharmacopeia by calling 800-23-ERROR, or on-line at *www.ismp.org* or *www.usp.org*.

"a tremendous difference in the way [doctors and nurses] communicate," Ms. Graham says. "Nurses talk in terms of the nursing care plan," which often goes beyond the patient's immediate situation, while doctors "want the headlines," or a synopsis of what they need to do at a given moment, she adds.

When a nurse calls, the doctor who is on rounds in the hospital isn't interested in the patient's entire history, Ms. Graham says. A physician wants to know what the problem is and what action needs to be taken.

To address that critical differential, Kaiser borrowed a communication technique from the nuclear submarine industry, called S-BAR, for situation, background, assessment and recommendation. The technique gives nurses and doctors "a structured way of communicat-

> **One of the biggest risk factors** in primary care is that offices "don't have follow-up on things like lab work and specialist referrals," says Dr. William Jessee of the Medical Group Management Association. "Sometimes tests don't get done, or the results don't come back, or the results come back but are misfiled or not noted as abnormal."

ing" by narrowing down the narrative process to the nuts and bolts: this is the situation, this is my assessment of the situation, and this is my recommendation, Ms. Graham says. The technique has proved so popular that it is "crossing our organization like wildfire," she adds. Doctors like it because nurses get right to the point, and nurses like it because it gives them a tool for understanding what physicians are likely to ask, and they can be prepared with answers before picking up the phone, Ms. Graham says.

## Talking to Patients

Doctors also face critical communication gaps with their patients, experts say. Dr. Gandhi's study, for example, found that the most common source of ADEs in ambulatory settings was the failure of doctors to respond to medication-related symptoms reported by patients and patients' failure to inform doctors about such symptoms.

The "patients often had symptoms for months without any changes in their medications, and only a small percentage of patients reported that symptoms led to a visit to a physician," the

authors said. "Clearly, strategies to improve patient-doctor communication are essential in the outpatient setting. The strategies could include developing educational materials for patients, improving translation services and increasing patients' access to outpatient pharmacists [to discuss medications and side effects]," the study said.

Researchers also suggested implementing strategies to monitor side effects, such as having a nurse or pharmacist call patients after an office visit to ask about any problems related to medications. Doctors should raise their awareness of the importance of monitoring symptoms, the prevalence and burden of adverse drug events among outpatients, and the range of therapeutic alternatives, the authors recommended.

The ACP's safety education module on communication offers a variety of tools for effective physician-patient interaction.

"Communication lies at the heart of medical care and caring," the ACP text says. "It is one of the most basic and most powerful vehicles to cement the physician-patient relationship without which therapeutic goals are difficult to define, much less to achieve. Missed cues and communication by both physician and patient can lead to patient safety issues."

One common occurrence that calls for good communication skills is a referral to a specialist, which "requires unambiguous communication, both written and oral, to assure continuity of care and avoid duplication of services," the ACP says. Primary-care doctors should discuss with patients why the referral is being made, what to expect from the new doctor and whether the visit is for a one-time consultation or ongoing treatment.

"Patients can help clarify incomplete or ambiguous information if they have a rudimentary knowledge of their disease and why the referral was made," the instructional text says. "This saves time for physicians and patients."

The module cites a 1992 study by the Commonwealth Fund, which found that doctors overestimate the time they spend explaining and planning with patients by up to 900 percent, and that one in four patients does not always follow the doctor's advice.

ACP suggests applying several techniques designed to help doctors listen to patients, understand their concerns, and take the time to become more effective communicators. One technique,

dubbed the SEGUE framework, was developed and tested by Northwestern University to foster successful rapport and give-and-take between doctors and patients. The mnemonic reminds doctors to:

■ **Set the stage.** Greet the patient appropriately, determine the reason for the visit and establish rapport.

■ **Elicit information.** Be sure to give the patient time to answer questions. Give the patient your undivided attention and don't interrupt. Ask the patient about his or her "fears and thoughts," ACP advises. This "conveys caring and provides, at the same time, an airing of the patient's perspective, illustrating how and why this perspective may differ from the physician's view." This insight gives physicians an edge in determining how to bridge the gap and help the patient focus on treatment options.

■ **Give information.** Provide advice and suggest the course of treatment. Adapt your explanations to the patient's level of understanding and encourage the patient to ask questions.

> **Dr. Maher Roman,** primary-care team leader at the VA Loma Linda Healthcare System, is working to convince physicians that as they build in safety-conscious processes, they should include in those improvements "open access to care." That means giving patients who call with a medical problem the ability to see their doctor that same day.

■ **Understand the patient's perspective.** Once the patient has been informed of suggested treatment strategies, reevaluate his or her perspective on the options.

■ **End the encounter.** Closing the visit should be efficient, yet unhurried. Be sure to review the next steps, such as follow-up appointments or prescriptions that need to be filled.

ACP also advises doctors not to interrupt patients when they describe their symptoms and to understand their emotional state by following the steps and using language similar to that described by NURS:

■ **Name the emotion.** By echoing the patient's emotion, for example, "that sounds sad for you," doctors communicate that they understand and recognize what has been said.

■ **Understand their reaction.** Doctors can acknowledge a patient's distress by saying, "I've never had that happen, but I can

see how deeply it hurt you."

■ **Respect the difficulty the patient has had in coping,** with phrases such as, "I like the way you've hung in there and kept fighting."

■ **Support the patient.** Practitioners should let the patient know that they will help in any way they can, and work together to solve the problem.

A third series of communication cues offered by ACP is encompassed in "The 4 E's": engage the individual; establish a working agenda; empathize with his/her story, and educate the patient. These steps "will build a positive, trusting environment," ACP says. "If there are differences of opinion or understanding, they can be talked through without arguing."

## Simple Strategies to Reduce Risk

While computerization is often described as a central solution to medical error reduction, primary-care doctors in office settings can apply a wide range of low-tech strategies to improve safety,

### Who Is Authorized to Give Advice to Patients?

Patients consider information obtained from medical office staff to be originating from the physician, whether that communication comes in person, over the phone or with a patient's family member, says American Physicians Assurance Corp., a malpractice insurer based in East Lansing, Mich. The carrier advises physicians to make sure that all staff members clearly understand their responsibilities and the limitations of providing medical advice to patients. Staff members should never give medical advice without the physician's knowledge and consent.

To help ensure that all staff communication with patients occurs within the scope of individual job responsibilities, American Physicians advises medical offices to have specific written guidelines addressing the following:

■ Job descriptions, including guidelines that address specific advice staff may provide and under what circumstances.

■ Telephone protocols.

■ Prescription-refill authority.

■ Patient privacy and confidentiality.

■ Staff's role, if any, in the informed-consent process.

medical and safety experts say.

One of the biggest risk factors in primary care, for example, is that offices "don't have follow-up on things like lab work and specialist referrals," says Dr. William Jessee, president and chief executive officer of the Medical Group Management Association (MGMA). "Sometimes tests don't get done, or the results don't come back, or the results come back but are misfiled or not noted as abnormal." An informal survey conducted on MGMA's Website, asking members what they believed to be the biggest risk to patient safety in their practices, found that 57 percent of respondents identified lost test results as the greatest risk.

"I knew it was an issue," Dr. Jessee says. "But I was surprised it was that high." The results "blew us away in part because it's one of the easiest ones to create a simple system for," he adds. Practices working with a paper system for ordering tests only have to set up a "tickler file," Dr. Jessee says. If a test is ordered on Tuesday, a copy of the order can be placed in the file for a two-week period. If the results are not back in two weeks, the practice calls the lab to find out when the patient had the tests and what the results showed.

A similar manual reminder system can be set up for notifying patients with chronic diseases who need monitoring and periodic testing to control their condition, Dr. Jessee says. While this is easier to do with an electronic medical record, physicians "can set up a manual system almost as easily," he adds, in much the same way that dentists and veterinarians send reminder cards when patients are due for a checkup or vaccine. In a primary-care medical practice, reminders can improve quality through more vigilant monitoring of patients with conditions such as hypertension, diabetes and high cholesterol, Dr. Jessee says.

Low-tech remedies are also available in the error-prone area of medication management. Doctors who don't use computerized prescribing can take precautions against problems related to poor handwriting, for example, by using prescription pads that have icons on the side showing what type of medication is being ordered, Dr. Allen suggests. Physicians ordering heart medication write out the name of the drug, but by circling a heart-shaped icon they may help pharmacists avoid dispensing the wrong drug. Doctors should also avoid using abbreviations, he adds. "We're

trying to impress on [doctors] to write out the word as opposed to using abbreviations," which are often misinterpreted, Dr. Allen says.

Keeping medication lists current is also important for accurate prescribing and avoidance of adverse drug events, says Dr. Ranjit Singh, associate director of the Patient Safety Research Center at the State University of New York, Buffalo. He points to several simple strategies for keeping up-to-date with patients' medications. The simplest way is to arrange for patients to bring in all of their medications on every visit, says Dr. Singh, who works with primary-care practices to help diagnose risk areas for medical errors and develop solutions. One practice provided patients with special bags in which to carry their medications into the office; another gave out wallet-sized cards on which patients listed all their medications, which they presented at the office on every visit so that their chart could be updated.

## Same-Day Appointments

Dr. Maher Roman, primary-care team leader at the VA Loma Linda Healthcare System, is working to convince physicians that as they build in safety-conscious processes, they should include in those improvements "open access to care." That means giving patients who call with a medical problem the ability to see their doctor that same day.

Dr. Roman, who is also an assistant professor of medicine at Loma Linda University School of Medicine, says that open access is a critical safety issue because it avoids delays in care and promotes one of the "main tenets of primary care, which is continuity."

Many patients end up in the emergency room because they couldn't get an appointment with their primary-care doctor for at least a week or two. As result, emergency rooms and urgent-care centers treat patients who don't have a true emergency.

"If I am able to see my own doctor, chances are he is going to be more familiar with my case" than an emergency-room doctor, Dr. Roman says. "It's illogical to me that patients can't get to see their doctor when they really need to." While physicians focus on the needs of patients with chronic diseases and management of conditions such as diabetes and high cholesterol, "somehow

we forgot that patients do get ill" and need to see their doctor when that happens, Dr. Roman says. "We are so busy with chronic care that we are not serving patients on their terms," he adds.

Dr. Roman's quest for open access began in 1997, when he first proposed such a system at the Veterans Affairs center where he worked. At the time, new patients who called with a medical problem had to be seen first in the urgent-care center, and might not be assigned to a primary-care physician for three or four months after that visit. In the interim, the patient had to return to the urgent-care center for their medical needs, Dr. Roman says.

> **Referrals to specialists** require "unambiguous communication, both written and oral, to assure continuity of care and avoid duplication of services," the ACP says. Primary-care doctors should discuss with patients why the referral is being made, what to expect from the new doctor and whether the visit is for a one-time consultation or ongoing treatment.

Like all of the VA's primary-care physicians, Dr. Roman covered the urgent-care center for half a day each week. Patients who were sent there faced long waits and often left in frustration, he says.

"We had patients waiting six hours, afraid to go to the bathroom because their name might be called," Dr. Roman says. Up to 15 percent "used to leave because they got so tired of waiting," he adds. "Some might come back later, some not at all. Do we know what happened to them? No. Some could have had serious safety issues."

Dr. Roman proposed redesigning the primary- and urgent-care systems so that once patients were seen at the urgent-care center, the physician who attended that patient became his or her primary-care provider. Patients had a doctor from day one, and that physician would make the transition to open access in his regular practice. The end result would be an urgent-care center that wasn't jammed with patients in need of primary care and primary-care practices that accommodated patient needs immediately. While it took several years to overcome skepticism and convince colleagues and administrators of the feasibility and benefits of open access, the new design was piloted for a year in Dr. Roman's practice beginning in February 2001 and implemented system-wide in March 2003.

In addition to eliminating wait times for primary-care services, open access has saved the VA over $2 million, Dr. Roman says. Because the old system was inefficient, it required more space and more physicians, he says. "The financial aspects were attractive to administrators," Dr. Roman adds. "For me it was the quality." Dr. Roman has documented improvements in both quality and productivity, and expects to publish a paper on the results in the next six months.

To make the transition to open access, Dr. Roman devised a step-by-step tool he dubs the ABCDS, which guides practitioners through the process of assessing their practice, determining what they have to do to achieve open access, and measuring improvements.

> **Make the most of patient visits**, says Dr. Maher Roman. For example, when a diabetic patient comes into the office for a respiratory infection, the practice could gain efficiencies by performing regularly scheduled tests and monitoring at the same time, rather than having the patient come back in two months.

The first step is to examine appointment availability, and how long it takes patients to get on the schedule.

Next, physicians need to measure bottlenecks in their practice by determining how long it takes patients to move through their appointment from check in to check out. For example, if a patient arrives as a walk-in at 10 a.m., waits until 1 p.m. to see the doctor and leaves the office at 2 p.m., the cycle of time is four hours. This cycle of time reflects how healthy the practice is, Dr. Roman says. The goal is to achieve a "balance point" that allows patients to see their doctor on the same day without a long wait, he adds.

Third, doctors need to look at capacity in terms of whether patients can be seen on the same day. Practices can consider ways to free their capacity for open access, such as giving patients with hypertension home-monitoring blood pressure machines and "educating them about goals," Dr. Roman says. They should also make the most of patient visits, he adds. For example, when a diabetic patient comes into the office for a respiratory infection, the practice could gain efficiencies by performing regularly scheduled tests and monitoring at the same time, rather than having the patient come back in two months, Dr. Roman says.

The next step is to analyze demand by measuring how many patients call on a daily basis for appointments, prescription refills, test results and other needs in order to determine whether that number is in balance with a practice's capacity.

The final phase is measuring patient and staff satisfaction.

One of the most daunting aspects of the transition is cleaning up the backlog of appointments "so that eventually you do today's work today," Dr. Roman says. Doctors should start the process by setting a deadline by which they will achieve open access, he adds. Initially, practitioners must put in longer hours to meet the deadline. But as they simultaneously work to reshape capacity and demand, practices will ultimately be able to return to normal business hours.

"The biggest barrier [to open access] is physicians' resistance to change," Dr. Roman says. They think it is impossible to achieve in their practice, or that "patients will abuse the system," and practitioners will be so busy that they will never go home, he adds. "But that's not really true," Dr. Roman says.

The simple objective of open access, he adds, is "doing the unthinkable: offering every patient an appointment for today if they wish to be seen," Dr. Roman says. "That might be a scary thought," and doctors may have to work harder for a short period of time, but the result is "much better care down the road."