PATIENT SAFETY ALERT™

A quarterly supplement on best practices in safe patient care

Has the nursing shortage decreased health care quality?

Physicans say time constraints, managed care share in the blame

In what some in the industry are calling a "landmark" study, more than half the U.S. physicians surveyed said their ability to provide quality health care to patients has deteriorated over the past five years, and fewer than one in six said that ability had improved over the same period.

"These findings are alarming," notes **Robert Blendon**, ScD, survey author and professor of health policy and management at Harvard. "What's worse is that many doctors fear this decline in quality will continue."

The study, conducted jointly by the Harvard University School of Public Health in Boston and The Commonwealth Fund in New York City, surveyed 528 practicing generalists and specialists (cardiologists, gastroenterologists, and oncologists) in the United States and approximately 2,000 physicians in Australia, Canada, New Zealand, and the United Kingdom.

Survey respondents cited several key factors in the decline of quality:

- Nursing staff levels are inadequate.
- Primary physicians don't have enough time to spend with patients.
- Hospitals do a poor job finding and addressing errors.
- Doctors are not encouraged to report medical errors.
- Physicians are concerned about their ability to keep abreast of new medical developments.

American physicians said their greatest concern about hospital resources was inadequate nursing staff levels. **Steve Eilen**, MD, a physician with Atlanta Cardiology Group, couldn't agree more. "Hospitals can't hire enough nurses to fill their staffs," he says. "What happens is they hire agency nurses who don't know where anything is, how to do anything, or who to call to get anything done. Ironically, on a per-hour basis they're much more expensive than permanent nurses, so hospitals are forced to spend more money for inferior care."

"There clearly is a shortage," offers **Richard A. Lewis**, MD, FACC, a partner in Cardiology Associates of Fredericksburg (VA), although he says he does not have a problem with the quality of the nurses with whom he works. "The nurses we have are very qualified and dedicated, but they are being stretched thin. Supply has been decreased because there are so many other career opportunities today, hospital administrations are stretched thin; their reimbursements keep coming down; and the biggest expense is salary."

"In some institutions they have really reduced staff below what I call a safe level," asserts **Dave Spencer**, CEO of Tampa, FL-based Safety-Centered Solutions Inc., a vendor of medical error reporting systems. "We have seen clearly that as staff reductions are made, the incidence of medical errors goes up."

These staff reductions have a real, and sometimes critical, impact on the ability to deliver quality care. "I had an indigent patient with an aortic dissection and tried to get him moved to a tertiary care center for specialized surgery," recalls Eilen. "The hospital wouldn't take him, citing a lack of beds. I talked to a thoracic surgeon, who told me the administrators no longer wanted to

As patient safety issues gain importance, American Health Consultants has created this supplement as a service to our readers, to provide up-to-date information on patient safety issues and trends, together with expert advice on how to meet the coming imperative for better quality and safety in patient care. Special thanks to Safety-Centered Solutions Inc. for help in preparing this issue.

accept indigent patients. They were in such dire straits that they could no longer do surgery after hours. There are only so many nurses to go around, and the hospital did not want them to work after hours because they'd have to pay overtime."

"The busier each nurse is, the more errors they can make," adds Lewis. "They're under stress; there's not as much time for review; and there's not as much time for teaching. Nurses have more bedside time than doctors, and they can help reassure and educate patients if they have the time to do it."

Patients do notice the difference, says Eilen. "I've had patients in telemetry beds who vehemently refused to stay at a specific hospital because the nursing care was so bad. With fewer nurses per patient, the patients become frustrated because they don't get bathed; beds don't get changed; they don't get to the procedures they're supposed to go to; doctors' written orders are not followed; or their medicines are late."

Compounding the problem is that at the same time the quality of care is dropping, the patients' level of sickness has increased, Spencer adds. "We're compressing the length of stay. People are being discharged earlier, so while they are in the hospital, they are sicker on the average. Also, people don't get admitted for less acute conditions. So we are faced with these two converging forces."

Eilen concurs with the survey respondents who noted that physicians don't have enough time to spend with patients. He places the blame squarely on managed care. "Here's what happens: A patient walks into the office, and he has a [copayment] of $10. You make $40 from that patient. That hardly pays for you to walk in the door, not to mention your overhead," he says. "So you need to see more patients or reduce your overhead in order to try to compensate for that. You can use [physician's assistants], which a lot of people do, but many patients are not happy about it; they want to see the physician. And my personal opinion is that the quality of care is not as good."

Lewis says he also feels frustrated by managed care. "It has definitely driven quality down from many aspects. There are increased demands for record keeping, which detract from the amount of time you can spend with each patient. With decreased reimbursement, you need to see more patients, so you have less time with each individual patient."

Lewis says the "gatekeeper" structure actually restricts access to specialty care. "The primary physician may not be qualified to determine if there is a need for specialty care. Sometimes, the patients know best, and some-times just the reassurance a specialist can provide is therapeutic."

He adds that nonphysician reviews of charts and cases that "second guess" a physician's diagnosis and treatment plan can put pressure on physicians. That could cause them to "discharge a patient before [they] think [that patient] is ready and to restrict access to testing [the reviewers] feel is inappropriate but that the practitioner feels is medically necessary. They're not doctors; they don't have the experience with patient contact that we do. They go by written guidelines, but every patient is different, and every case is different. Unfortunately, managed care discourages individualism and creativity and doesn't reward experience."

The good news from the survey is that not all respondents said a continued decline in quality is inevitable. They said that technology, especially electronic record keeping, can serve to curtail a significant number of errors.

"I would think that's true," says Lewis. "We spend a lot of time documenting, and technology would help. It also may cut down on errors; for example, a lot of programs identify potential drug interactions."

"It's a very legitimate claim," adds Spencer. "A tremendous number of things can be done to increase the accuracy of reporting and to give caregivers more access to data. Most of the errors can be eliminated if we will use the information and technology intelligently."

Eilen says he has mixed feelings. "I've looked into electronic prescription, and in its current state, it's more labor-intensive, at least in the beginning. For me, it's not a great timesaver. Electronic record keeping will be good for a lot of reasons, but only if records are centralized."

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Study targets errors in ambulatory setting

Seeking to close a cavernous information gap, The Robert Graham Center for Policy Studies in Family Practice and Primary Care in Washington, DC, has launched a nationwide study of family physicians to identify medical errors in an ambulatory setting. According to the organization, most medical-error research to date has focused on inpatient information.

"I arrived in the U.S. [from New Zealand] in 1999, at about the same time as the Institute of Medicine's *To Err is Human*[1] study came out, and I was assigned to the topic of medical errors," recalls **Susan Dovey**, MPH, a Graham Center analyst and head investigator for the study. "I quickly became aware that virtually all discussion of medical errors is focused on hospital care. But our organization's focus is primary care."

In fact, Dovey's initial efforts involved a major study of exactly where people encounter the health care system in the United States, which was when she discovered that 25 times as many people in this country have experiences with office-based providers than with hospital-based providers. "This sort of crossed over into the current study," Dovey explains. "Everyone talks about medical errors in terms of problems such as wrong-sided surgery, but relatively very few people have those sorts of problems."

Dovey is clear that one of her goals is to fill an information gap in the medical literature.

Linda C. Stone, MD, president of the Ohio Academy of Family Physicians and a member of the faculty at The Ohio State University in Columbus, says Dovey's on the right track.

"There's currently a big push in family medicine," she says. "But if we're really going to advocate for our patients, we need to have practice-based research. Most of our patients don't go to the hospital. We should be looking at our outcomes. Are we proving over time that the things we're doing continue to work? At Ohio State, our big push is practice-based research, to in turn make sure our ongoing family practices are evidenced-based."

In all, 42 family physicians filled in Dovey's data form between May and August 2000. She is adamant about the fact that the focus of her study is errors.

"People often confuse terms," she explains. "For example, there are adverse events, which may or may not be due to a mistake. A certain number of people will always have an adverse reaction to the 'right' medication.

"Then there are critical incidents, or near-misses, which are sometimes adverse events but not always. Then you must distinguish between mistakes and medical errors; there can be times when the wrong thing clearly happened, but it may or may not result in an adverse outcome. We were very focused on medical errors," Stone says.

She also makes it clear that all errors merit attention. "Little errors sometimes progress and kill people," she notes. "Hospital protocols can help prevent that kind of progression, but there are no equivalents for primary care or for laboratory tests. That's why we needed to collect these data." **(The progression of a little error can result in what Dovey calls a "Toxic Cascade." See related story, p. 4.)**

Whatever the survey turns up, Stone says all errors will be divisible into what she calls "two piles:" low-tech and high-tech errors. "To me, the most important is low-tech. As family physicians, the most important thing we establish with a patient is a relationship. If we communicate really well back and forth, that will be the first big step to eliminating errors. If you go where the patients are, you will serve them better."

For example, she says, when you tell patients the tests show they have cancer, you must be aware they will hear nothing else you say, which makes it that much more critical to write down your discussion. "The patient will get home and not remember what to tell family members."

As for the high-tech role in eliminating errors, Stone encourages her patients to explore the Internet. "They will feel empowered to communicate with you. Otherwise, they may miss pieces of information and be sent down the wrong path."

Dovey says her hopes for future studies reflect a similar respect for the collaborative role between patient and physician.

"Our current study is only from the doctor's world view," she admits. "Studies also need to be done from the patient's world view and from the clinician's world view."

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Reference

1. Kohn LT, Corrigan JM, Donaldson MS, Eds. *To Err is Human: Building a Safer Health System.* Washington, DC: National Academy Press; 1999. ■

Survey leads to new model for illustrating errors

A funny thing happened to **Susan Dovey**, MPH, as she was conducting a study for The Robert Graham Center for Policy Studies in Family Practice and Primary Care in Washington, DC. She developed a new model for illustrating and analyzing medical errors.

Dovey, an analyst with the center, was lead investigator in a study examining medical errors in an ambulatory setting. As the study progressed, she created a model for illustrating what she calls "Toxic Cascades" and "The Patient Safety Grid." **(See box, below.)**

"As the data started coming in, we became immersed in them," she says. "It soon became clear that current models . . . were not appropriate for us."

The Toxic Cascade refers to four separate categories of errors, each progressively serious:

1. trickles, e.g., misfiled records;
2. creeks, e.g., prescribing contraindicated medications;
3. rivers, e.g., undiagnosed fractures;
4. torrents, e.g., amputating the wrong leg.

Errors in the less-serious categories progress into the more serious categories in some cases, while in others they do not. The Patient Safety Grid, in turn, incorporates the Toxic Cascade model into four different settings:

1. self-care;
2. clinicians' offices;
3. institutional-based ambulatory care;
4. hospitals.

The purpose of the model is to help identify problem areas and areas where appropriate intervention can make a difference, Dovey explains. "Perhaps these minor things in primary care can build up to a torrent. We often lose opportunities to stop those from moving much further up the system. Take antihypertensive medications. Most of the patients taking them would not have a heart attack anyway, but some of them would have and didn't because they were on the appropriate medication."

A "trickle," such as a filing error, is quite common, but if that trickle involves a lab result showing a breast lump to be malignant, inaction could be fatal, she says.

"Having a misfile of an important result that should have been acted upon becomes a creek. If [it is] left without being acted upon until it's too late, it becomes a river, and if the patient dies, it's a torrent," Dovey explains.

The Patient Safety Grid was designed to researchers to "take a real 'macro' look at the whole scope of medical errors," she says. "What we currently know most about is patient deaths. If a patient dies, we say we can't let that happen again; we explore the reasons and increase our knowledge. But if they were just harmed, we don't know as much. In addition, what we currently know most about is what happens in health centers because that's where most of the research has been done." ■

Patient Safety Grid: Toxic Cascade

Source: The Robert Graham Center, Washington, DC.