

WHY IT MATTERS: THE MEDICAL SYSTEM IS A LEADING KILLER

In 1998, reporters Fred Schulte and Jenni Bergal at the Fort Lauderdale *Sun-Sentinel* wanted to find deaths from cosmetic surgery, but their reporting had hit a dead end.

Doctors hinted at horrendous problems that a colleague was having, then provided no details. And, coroners said they knew of no deaths from liposuction, a supposedly safe cosmetic surgery that makes people thinner.

All that changed when Schulte and Bergal searched records where the bodies were piling up: the county morgue. The slow, painstaking review unearthed striking cases. The reporters identified even more deaths from liposuction when they investigated hundreds of malpractice suits.

Their four-day series in the Fort Lauderdale *Sun-Sentinel*, which began Nov. 29, 1998, was eye-opening in several ways.¹

The reporters found 34 deaths related to cosmetic surgery from 1986 through 1998 – a number far higher than anyone imagined, particularly for an elective procedure. The reporters also found 1,100 serious injuries, ranging from painful skin burns to grotesque disfigurements, dating to 1980.

The series changed the public perception of Florida's booming cosmetic-surgery industry. The evidence debunked the notion that board-certified plastic surgeons do not kill patients. Subsequently, the legislature approved regulations requiring doctors to alert the state within 15 days of any deaths or serious injuries in their offices.

That requirement has made it easier for reporters to discover problems. The death count from cosmetic surgery in Florida has since passed 40. The cosmetic surgery series is just one example of what reporters are doing nationwide to cover medical errors. More stories are out there.

The health system has long buried its mistakes – both literally and figuratively. Hospitals and caregivers have been fierce in shrouding their errors and surprisingly slow in fixing systems that produce those mistakes. State and federal regulators have been reluctant to name names.

At last, however, the secrecy is ending. A 1999 report by the prestigious Institute of Medicine estimated that as many as 98,000 people die each year from errors.² In 2000, Congress directed the U.S. Agency for Healthcare Research and Quality to spend \$50 million on research to improve patient safety. Many state officials have re-examined their laws on reporting medical errors, and concluded that more needs to be done.

At the same time, a growing number of Fortune 500 companies are prodding hospitals to root

out medical errors. The Leapfrog Group, representing 96 of the nation's largest corporations, has asked health plans covering its members' employees to compel hospitals to undertake three quality initiatives. (See Page 4:5)

Even the Joint Commission on Accreditation of Healthcare Organizations, the hospitals' accrediting agency that has been much criticized for inaction, is getting into the act. On July 1, 2001, the Joint Commission began requiring hospitals to tell patients when mistakes occur to keep their organizations in good standing.

Reporters have exploited the new openness. Former *Boston Globe* reporter Richard A. Knox deserves much of the credit for raising public awareness of medical errors. In 1995, Knox broke the story of Betsy A. Lehman, a *Globe* medical columnist who died after receiving a massive overdose of an experimental chemotherapy drug.³ Lehman's death created a national furor that spurred patient-safety efforts and media coverage nationwide. Several reporters have followed Knox's lead:

- *Boston Globe* reporter Larry Tye used Massachusetts' progressive reporting laws in a 1999 series to tell many stories of medical errors that had never been told publicly.⁴ For example, Tye found a mother who had died of a medical error nine months to the day after her daughter died from an unrelated medical mistake. State officials hadn't noticed the family connection.
- *Philadelphia Inquirer* reporter Andrea Gerlin took advantage of the chaos of a health system's bankruptcy to document one hospital's entire malpractice history. This gave readers an unusually detailed look at the errors administrators knew about. (Even administrators do not hear about every incident.) Gerlin reported that no doctor was punished for any of nearly 600 mistakes that administrators knew had occurred during a 10-year period.⁵
- *Chicago Tribune* reporter Michael J. Berens merged several federal and state databases to identify more than 1,700 deaths caused by nurses.⁶

It's not necessary to write blockbusters to cover medical errors. One patient's story can be powerful and add to public understanding. The *Boston Globe's* Anne Barnard wrote a compelling piece in August 2001 about the death of 13-month-old Taylor McCormack after routine surgery at Boston's prestigious Children's Hospital.⁷ A state investigation found that the senior physician in charge had set his pager to vibrate and had slept through repeated pages, leaving inexperienced residents to handle the care. One resident wasn't even properly licensed, records later showed.

To get started on a story, a reporter needs nothing more than a tip from a malpractice attorney, the morgue, a medical professional, a state official or a patient's relative. The medical establishment is beginning to recognize that all doctors — even good ones — make preventable mistakes.

The systematic study of medical error remains at an early stage. Many researchers are working to

develop a sharper picture of the frequency of errors and what can be done to prevent them. A surprising number of hospital executives have begun to talk openly of their institutions' mistakes and to tell the media what is being done.

In short, there has never been a better time to cover – and uncover – medical errors.

KEY FACTS: TOO MANY DEATHS, TOO MUCH MONEY

- Two studies in the IOM report estimate that between 44,000 and 98,000 people are killed each year from medical errors.²
- Medication errors are thought to cause 7,000 deaths annually – more than the 6,000 deaths that occur each year in the workplace.² The annual cost of medication errors is at least \$2 billion.²
- Total costs for preventable medical mistakes, including lost wages and extra health costs, are estimated to be between \$17 billion and \$29 billion a year.² Preventable mistakes in hospitals alone are thought to cost from 2 percent to 4 percent of national health expenditures.²
- Forty-two percent of randomly selected Americans said they had personal knowledge of a medical error that had happened to themselves, a relative or a friend, according to an October 1997 poll financed by the National Patient Safety Foundation, an independent group established by the American Medical Association.

BACKGROUND: HOW THE HIDDEN EPIDEMIC OF MEDICAL MISTAKES IS BEING EXPOSED

THE IOM: MEDICAL ERRORS HIT PRIME TIME

The Institute of Medicine report, *To Err Is Human: Building a Safer Health System*, is probably the single most important document for reporters covering medical errors.

For all the hoopla it caused when it was released in December 1999, the 287-page report contained no new research. Crucial parts were nearly a decade old. What made the report newsworthy, in part, was the organization that published it. The IOM, part of the National Academy of Sciences, is free of direct government control and one of the most respected groups in medicine.

The report also hit home because it put a number on medical errors. The report estimated that 44,000 people – and possibly as many as 98,000 – die each year from medical mistakes in hospitals. This statement has become a staple in stories on medical errors. It means that hospital care alone is the fourth to the eighth largest cause of death in the United States, outpacing the carnage from motor vehicles (43,458), breast cancer (42,297) and AIDS (16,516), as measured in 1998.

Put another way, one of every 200 patients admitted to a hospital ends up dead because of a hospital mistake.

These estimates provide reporters with the material for a strong summary to back up an opening anecdote. Bear in mind, though, that the report's figures should be presented as estimates because of the way they were derived and the continuing dispute over their accuracy.

The IOM's death estimates were pointed enough to make them front-page news in *The New York Times*, *The Washington Post* and *USA Today*. The report was mentioned prominently on the NBC and ABC evening news and made the morning shows of the original big three networks. A Kaiser Family Foundation survey projected that as many as 51 percent of all Americans had heard of the errors report – an unprecedented number for such a complicated issue.⁸

This is actually an old and long-neglected story. As far back as the 1970s, a physician-attorney named Don Harper Mills analyzed more than 20,000 medical charts and concluded that one patient in 20 was harmed by treatment.⁹ Even the IOM raised the alarm in late 1998 when a report by an institute working group, the National Roundtable on Health Care Quality, declared that many patients are harmed by their medical care. But the media ignored medical errors for many years, despite a great deal of evidence that frightful mistakes occur frequently. (*The New York Times*'s five-part series in 1976 on medical errors and overprescribed drugs was an impressive exception.) The media also paid little attention to a March 2001 IOM report, *Crossing the Quality Chasm*, which went beyond errors and concluded that the health system fails to deliver high-quality care to many people.¹⁰ That's as important as the error report, but harder to cover because it lacks the immediate appeal of the death statistics.

BLAMING INDIVIDUALS VS. BLAMING THE SYSTEM

While the death numbers received all the publicity, the 1999 IOM report also contains studies and perspectives to help cover medical errors. One important insight: The authors note that most errors result from faulty systems, not from incompetent providers. Every system, in short, allows the errors that occur. These systems need to be revamped to anticipate human error and catch it before it harms the patient.

Reporters who delve into a medical error will often find that many participants may be to blame. In December 2001, a surgeon at Rhode Island Hospital in Providence opened up the wrong side of a man's head.¹¹ How did it happen? A medical resident had placed a CT scan backwards on an x-ray viewing box. The reversed scan made it look as if the right side of the patient's brain was bleeding when really the left side needed to be drained. No nurse caught the error in part because hospital policy did not call for marking the site beforehand. Those responsible for the mistake worked in the surgery suite, on the support staff and on the committee that wrote hospital policies.

This line of thought – that systems, not individuals, produce errors – has profound implications for caregivers and reporters.

Medical leaders believe that focusing on systems is the best way to prevent errors. Assigning blame helps keep them hidden. A systems approach emboldens the frontline folks to come forward with information needed to understand how mistakes occur.

Many doctors and nurses would like nothing better than for the media to stop skewering them individually and report on errors in the safer, neutral language of system failures. Indeed, if there is one overarching critique of quality stories from the medical profession, it is that the reporters look for victims and villains and blame caregivers too much.

For journalists, however, reporting on system failures can be difficult. Such stories tend to be dry and antiseptic – exactly the thumb-suckers that harried readers lack the time for and won't remember anyway. Even the IOM, when it wanted national attention for medical errors, resorted to blame by highlighting the number of deaths that hospitals are believed to cause every year.

But some journalists say the medical professionals may have a point. These reporters believe that the deepest stories include not only personal anecdotes but also some sense of how these errors result from system failure. Reporters cannot let individuals off the hook, but the media should remember that no one acts alone. An error can usually be traced back to the system that sustains and directs the “perpetrator.”

Here's one example. In an April 1, 2001 story in the New York Times, reporter Jennifer Steinhauer cited several examples of operations performed on the wrong body part.¹² Then she put these blatant errors in a larger context. “Wrong-site surgery is rarely the fault of a single person,” she wrote in the fifth paragraph. “By the time the wrong body part is actually removed, several factors have almost certainly come into play, ranging from a series of small but crucial mistakes by several people who dealt with the patient, to flaws in a hospital's operating procedures, to the very culture of American medicine.”

DISPUTES OVER THE IOM REPORT

Nearly every expert believes the medical world has a problem with errors. The question is, how large? Some people say the problem is far bigger than the IOM numbers. Others argue that the IOM overplayed the evidence. Both points have merit.

But the debate, as detailed below, is mostly an academic exercise at this point. Even the IOM's harshest critics put the number of deaths from errors at 5,000 to 25,000 patients a year. That's still far more than what humbler industries consider acceptable carnage. It took fewer than 100 deaths from faulty tires for Firestone and Ford to sever their century-old relationship and become the subject of congressional hearings and saturation news coverage. Somehow, medicine has escaped widespread condemnation.

Reporters will still need to understand this dispute, because it has kept arising since the IOM's blockbuster release. The numbers debate stems partly from the wide range offered in the IOM

report – 44,000 to 98,000 deaths caused by hospitals each year. The disparity troubles some experts. The higher rate is more than double the lower. These findings are based on just two studies covering three states: New York, Utah and Colorado. The data are fairly old. The New York study, which found the higher death estimate, was drawn from 1984 records while the Utah and Colorado work was based on 1992 data.²

The IOM authors took the error rates in those three states and extrapolated over hospital admissions nationwide. Not unreasonable, but not overwhelming science, either.

One critic was an IOM insider. Harvard researcher Troyen A. Brennan helped conduct the key studies that produced the death estimates. Writing in the April 13, 2000 *New England Journal of Medicine*, Brennan said the IOM report might be flawed – and even harmful – because it failed to focus solely on medical errors, but included many bad outcomes, which may be due more to poor luck than mistakes.¹³ Many surgeries produce a known rate of bad outcomes in which the intervention simply falls short. In his reassessment, Brennan suggested deaths from errors might be closer to 25,000 per year.

Clement J. McDonald and two colleagues from the Indiana University School of Medicine leveled a similar attack. Writing in the July 5, 2000 *Journal of the American Medical Association*, these critics said the studies' authors erred by assuming patients died as a result of medical errors when they might have died for other reasons.¹⁴

None of this elicited backtracking from Dr. Lucian L. Leape, the Harvard public health researcher who also worked on the studies and remains their most ardent defender. Leape noted that his study, published in the *New England Journal of Medicine* in 1991, was designed to limit hindsight bias.¹⁵ For a case to be counted, two experts had to conclude independently that an error caused death. They did not count bad outcomes as errors, Leape said.

Leape found the debate over numbers both important and distracting. What difference does it make if 98,000 or 5,000 people die every year in hospitals? The numbers still make hospital care a leading cause of death, and cry out for reform. And that's not even counting mistakes in other areas of health care.

There's significant evidence that Leape's studies were conservative in counting errors. Here's why: Those studies counted only errors noted in medical records. Doctors know that many mistakes are never recorded in a file where malpractice lawyers and reporters can find them.

When researchers at the University of Chicago sent trained anthropologists into a hospital to watch for and document errors, they found an error rate four times as high as Leape reported. More than 17 percent of patients in intensive care and on a surgery unit suffered disability or death due to mistakes, according to the study, published in 1997 by Lori B. Andrews and colleagues at the University of Chicago.¹⁶

The study of medical errors is just beginning to mature. More research needs to be done to pin down specifics. But the only debate remaining is over the magnitude of the problem.

Did the IOM cleverly package its material to highlight a gory statistic? Yes. Did it manipulate the media by leading with numbers that were strong but not ironclad? Again, yes. But is there a huge problem that should be covered extensively? Yes.

MEDICATION ERRORS

The Harvard Medical Practice Study, published in February, 1991 in the *New England Journal of Medicine*, still represents the most thorough examination of adverse events, or disabling patient injuries, and the large portion that are preventable medical errors.¹⁷ It found that drug complications were the most common type of injury, accounting for 19.4 percent of the total.

For more information on medication errors, see Chapter 5.

INFECTIONS AND OTHER POTENTIAL ERRORS

Hospital-acquired infections represent the second most common type of patient injuries in the Harvard Medical Practice Study.¹⁷ This is not a certain ranking. Infections simply may be more easily detected in hospital records – the data that the study relied on – than in other aspects of health care.

But they are undoubtedly common. In the hospital, many patients pick up infections from their care — from a catheter or ventilator, for example — and such infections can prolong their recovery or kill them. Hospital-acquired infections (known to researchers as nosocomial infections) kill or contribute to the deaths of about 88,000 people a year, according to the Centers for Disease Control and Prevention. (The CDC came up with these estimates in 1998, using 1995 data, the most recent available.) These outbreaks cost an estimated \$4.5 billion in 1995.

Medical error expert Lucian L. Leape estimates that errors — forgetting to give an antibiotic, not washing hands —account for roughly 5 percent to 10 percent of the deaths from infections. Another 10 percent to 20 percent of infection deaths stem from poor procedures — failing to give antibiotics on time, forgetting to remove catheters promptly. Both kinds of infections can be prevented by tightening hospital protocols and using well-established, infection control practices, Leape says.

The remaining two-thirds or more of infections are a mystery. No one knows exactly why they appear or how to prevent them. But safety efforts can still dramatically reduce infections. Northwestern Memorial Hospital in Chicago lowered its infection rate to 43 percent below the U.S. average by using new technology to closely track infections and taking added precautions.

Several trends are making infections a greater concern. Many microbes circulating in hospitals are resistant to the antibiotics that once wiped them out. Patients in the hospital are sicker than ever.

And because most are staying for shorter periods, many patients may be taking their infections home with them.

Reporters may want to explore a new source of infections — from donated ligaments, tendons, bones and skin. A 23-year-old man from Minnesota died in November 2001 from infected knee tissue. Yet the burgeoning tissue-donation industry is largely unregulated, according to *New York Times* reporter Sandra Blakeslee. There are no federal rules on how long after death tissues can be used, Blakeslee wrote in a Jan. 20, 2002 story, “Lack of Oversight in Tissue Donation Raising Concern.”²⁰

Reporters need to cover this area closely, but getting good information remains difficult. The CDC collects infection rates from about 5 percent of hospitals nationwide, but the data contain no names to protect the confidentiality of the hospital. And the numbers are based on the hospital’s honor and skill in reporting. It should come as no shock that some hospitals do a better job of reporting than others. The better hospitals sometimes list a higher infection rate than institutions where people don’t care as much. So using this database without qualifications is fraught with problems.

Surgical mistakes and errors in medical tests also happen frequently. The National Quality Forum, a Washington, D.C.-based nonprofit that is developing national quality goals, has approved a list of “never events” — 27 incidents, such as wrong-site surgery, that should never happen in health care.

Errors are not intractable. The anesthesiologists proved that. Anesthesia used to be one of the most dangerous areas of medicine. But over the last 30 years, anesthesiologists have transformed their specialty into one of the safest by studying errors and improving procedures. Reporters should be asking: If anesthesia can clean up its act, why can’t other areas of medicine?

MALPRACTICE

Malpractice suits — in which lawyers try to show that an error killed or hurt someone — remain a primary source for reporters covering medical errors. Here journalists can find names and detailed accounts of what happened to patients, and begin the spadework that leads to interviewing and photographing victims.

These records are indispensable. Every in-depth story cited in this chapter has relied at least in part on malpractice suits.

Still, the malpractice court has limitations. The cases that make it to court often tell more about the vagaries of the law than about medicine. Several studies, including the Harvard Medical Practice Study, show that only 2 percent to 10 percent of injured patients ever get as far as filing a lawsuit.¹⁷ And most will lose.

How can this be? Many patients do not know what happened or cannot persuade a lawyer to take their case. The ones who do get to court tend to be rich and can show substantial lost earnings that will drive up an eventual award – and the attorney’s fee. Or, successful plaintiffs tend to be children who will miss a lifetime of opportunities, thus increasing the potential damages in the case.

The bottom line: A small number of clients get their cases pushed. Whether the case makes it to court often depends on the potential payback. At the same time, researchers have noted a disturbing trend: Many cases that reach court lack merit. So reporters beware.

Most malpractice cases are filed in state courts. Each county collects malpractice cases in its civil court section, which can be searched by the doctor’s name, the hospital or the plaintiff’s name. To be complete, it’s often necessary to go to several counties if a doctor practices in a wide geographic area. Librarians can search for these suits on such services as Lexis/Nexis. Sometimes the state will provide a centralized way to search for malpractices cases. Check with the departments of health or insurance, or the state agency that oversees doctor licensing. Federal courts also hear malpractice cases.

LOCATION, LOCATION, LOCATION

Whether patients win a malpractice case may depend on where they file suit. In many counties in the United States, no patient has ever won. These are mostly rural areas, and obviously, reporters in those areas will probably learn little about medical errors from court records, although even unsuccessful cases may contain leads.

At the other end of the spectrum are malpractice hot spots, where laws and juries are more amenable to suits and patients regularly win vast sums. New York and Pennsylvania (thanks mainly to cases from New York City and Philadelphia) led the nation in total malpractice payout in 1998, according to the National Association of Insurance Commissioners. Washington, D.C., Chicago and Miami also produce frequent and hefty malpractice verdicts.

The Philadelphia area generated more malpractice awards in total dollars in 1998 than the entire state of California, according to the NAIC. (Pain and suffering awards in California are limited to \$250,000 while no such limit exists in Pennsylvania.) Malpractice insurers pay out less than \$2 per person in awards in Indiana, compared with more than \$50 per resident in the District of Columbia, the NAIC says.

COMMON TYPES OF MALPRACTICE CASES

Journalists who search malpractice records will inevitably find cases about wrong-limb surgeries. They are among the easiest mistakes for readers and viewers to understand. The case of Willie King of Tampa, Fla., a diabetic who had the wrong leg amputated in 1995, received national attention. King eventually settled his case for about \$1.15 million.

Wrong-site surgeries are dramatic. Many state health departments track these cases, at least in

aggregate. The New York State Department of Health received reports of 28 cases statewide in 2000, up from 20 cases in 1999, *The New York Times* reported.¹² Many of these cases are settled because the mistakes would be so apparent to juries.

There's some evidence that wrong-site surgeries are increasing. In December 2001, the Joint Commission noted an alarming spike in wrong-site surgeries and issued an alert saying that doctors and nurses needed to improve their communication. The commission sent out a similar alert in 1998 when it received reports of 15 "wrong-site" cases. Over the next two and a half years, the commission received an additional 135 reports. It may be that more are finally being reported. But "this is really an embarrassment for any place that has this happen. This is not infrequent," Dr. Dennis O'Leary, the commission's president, told the Associated Press.

Wrong-limb surgeries can be treated as single stories. But they are also tremendous opportunities to peer into the world of medical errors. Reporters can use them as a mechanism to scrutinize the chain of errors in the health system, and try to figure out what can be done better.

WHAT GETS LEFT BEHIND

In May 2001, the city of San Francisco paid \$125,000 to resident Sarona Collins because a blue towel and part of her colostomy bag were left behind in her body after two separate operations in the city-owned hospital, the *San Francisco Chronicle* reported.²¹

These cases exert a ghoulish fascination. On Feb. 7, 1996, funeral director Burton J. Decker Jr. cut his hand while embalming a body fresh from an autopsy at MCP Hospital in Philadelphia. The surgery team had mistakenly left behind a scalpel that nicked Decker. The hospital subsequently paid him \$2,100 for his injury.

This type of error is rare, but persistent. In Utah, state investigators found that at least 128 foreign objects had been left in patients after surgery from 1995 through 1999. Solucient, the Evanston, Ill.-based data consulting firm, estimated that more than 2,700 surgical patients nationwide had foreign objects mistakenly left in their bodies in 1998.

Again, the greatest significance of these stories lies in what they reveal about the system. Reporters should demand a list of changes the hospital is making to prevent this error from happening again.

STORY IDEAS: CONVERTING ERRORS INTO STORIES

The famous people shtick: Lift items from the "People" section to write probing pieces on medical errors. If mistakes can happen to politicians and movie stars, they can happen to anyone. Overly aggressive caregivers harmed singer Julie Andrews' voice, and a surgeon unclogged the wrong artery of heart patient Dana Carvey, sending the comedian's career into a tailspin.

Doctors and nurses as witnesses. Because their medical knowledge lends credibility to their stories, accounts of medical errors experienced by doctors and nurses can be especially

compelling. Mary Wakefield, a nursing professor at George Mason University in Virginia who helped write the IOM report, learned that doctors treating her 83-year-old mother for carpal tunnel syndrome operated on the wrong wrist. The late Dr. Avedis Donabedian, an internationally known quality guru at the University of Michigan, gave an inside account of the deficiencies in the care he received for bladder cancer in the January/February 2001 issue of *Health Affairs*.²² The nurses often didn't know what they were doing, and he had to teach them.

Is JCAHO really committed to patient safety? How rigorously has it enforced its patient-safety standards that went into effect July 1, 2001? How many hospitals were penalized for neglecting to tell patients of their errors, as the new standards require? Are caregivers admitting errors in areas with a high volume of malpractice cases? Are the new standards a public relations move or evidence of real concern?

Looking beyond the “perpetrator.” When a medical error occurs, describe the system that made it possible. If the health-care organization won't cooperate, examine other cases of similar errors. One researcher suggests asking five times why an accident occurred. Each time will produce a deeper explanation of the event.

Drug-name gobbledygook. Many deadly errors have occurred because different drugs have similar names, leading to mixups. It's not easy to keep straight the difference among Celexa, Celebrex, and Cerebyx, or Leukeran, Leucovorin, and Leukine. But despite appeals from groups such as the Institute for Safe Medication Practices, drug companies resist changing drug names because they have invested in marketing them.

Malpractice reform. Studies show that the malpractice system benefits only a small percentage of injured patients and can virtually shut down a doctor's work during trial. Patients who have experienced suits say there must be a better way. Some experts suggest that the United States adopt a no-fault system similar to those in Sweden and New Zealand. What other options are there? Skyrocketing malpractice premiums make this issue timely.

The aftermath of an error. After a mistake occurs, find out how the institution is redesigning its procedures to make sure it never happens again. What are 10 concrete steps the hospital has taken to improve patient safety? What do safety experts think of that list?

Error reporting. Check your state's requirements for reporting medical errors, and assess the program's effectiveness. There can be wide variations in the number of mistakes that hospitals report, and the differences may merely reflect the hospitals' diligence in reporting. What information are state officials collecting on medical errors and how are they using it? How are they assuring its accuracy? Can consumers use this data to draw fair comparisons?

The bankruptcy gold mine. If a hospital goes bankrupt, try to find malpractice cases in the filing. Items that are not usually reported publicly might show up in bankruptcy filings.

The VA in the forefront. The U.S. Department of Veterans Affairs, long derided for the quality of its health care, has become a national leader in improving patient safety and avoiding medication errors. The department's Veterans Health Administration has instituted safety changes, including computerized drug prescribing, that other hospitals can only dream about. Meanwhile, NASA has an \$8.2 million grant to adapt its aviation error-reporting system, credited with making commercial jet crashes a rarity, for use in VA hospitals. How have these efforts borne fruit at your local VA hospital?

The anesthesia success story. Over the last 30 years, anesthesiologists have transformed their specialty from one of the most dangerous to one of the safest. Mortality has fallen from 2 deaths per 10,000 anesthetized patients to 1 death per 200,000 to 300,000 patients. How did they do it? Can others learn from their success?

Computerized prescribing. Many hospitals are rushing to install systems to computerize drug prescription. This can reduce medication errors, by eliminating illegible handwriting and red-flagging drug interactions or incorrect doses. But the systems are expensive and many doctors won't use them because they can be clumsy. What are hospitals in your area doing?

TIPS AND TRAPS: AVOIDING MISTAKES

TIP: Most medical errors have happened more than once. When you learn of one, find out whether this sort of error has been the subject of widespread warnings. For medical errors, check with the Institute for Healthcare Improvement in Boston. For medication errors, contact the Institute for Safe Medication Practices or US Pharmacopeia.

TRAP: Be careful when a tipster complains about a medical error. Many people confuse errors with bad outcomes. Bad outcomes are the unfortunate events that occur even when everything was done well. A certain proportion of heart-bypass patients will die no matter what. Some errors, such as wrong-site surgeries, are easy to discern. Other mistakes are far more difficult to prove.

TRAPS: Malpractice cases can be good windows on medical errors, but covering them has many pitfalls:

- Don't jump to conclusions if a doctor has many malpractice judgments, or a particularly large payout. Some specialties, such as obstetrics and neurosurgery, attract more suits. Some good doctors have been sued many times while some bad ones have clean records.
- Be wary when covering cases involving children. Trial lawyers often do their best to manipulate the emotions in such cases.
- Don't rely on lawyers' accounts. Run everything by independent medical experts.
- Remember that large jury awards are often reduced by the judge.

TIP: When covering a malpractice case, talk to the plaintiff before the case is settled. Often final settlements contain gag orders silencing the complainants.

TRAP: But remember victims are not health-care experts. Rely on them for their emotional experience, but check their medical information and critiques of the system with objective experts.

TRAP: Scrutinize the data on nurse staffing levels. Hospitals often inflate their numbers by including nurses who work in administration, home health care and long-term care

TIP: Here are some ways to find stories on medical errors:

- Check with state licensing boards to find doctors or nurses disciplined for poor-quality care. Write up one professional's story.
- Call leading malpractice lawyers and ask them to direct you to a recent wrong-side surgery case, a recent medication error or a malpractice case with an unusually large judgment. Pick a case with wide significance that is well-documented.
- Ask officials of a hospital's unions if there are quality problems. Focus on one case that can be documented.
- Look through morgue records and see if any files refer to "surgical misadventure" or a similar phrase indicating a medical error.

REPORTERS' STORIES: MANY ROADS TO FOLLOW

MINING THE PUBLIC RECORD FOR ERRORS

"Patients at Risk," by Larry Tye, *Boston Globe*, four-part series starting March 14, 1999.
http://www.boston.com/globe/metro/packages/hospital_errors/masiellos.htm

About 15 states require that hospitals report medical errors, but only a few open those records in some form to reporters. Massachusetts is one prime example. Larry Tye, then a *Boston Globe* reporter, used Massachusetts state files to write a four-part series, "Patients at Risk," that ran in March 1999.

The *Globe* has a special relationship with the issue of patient safety. Health columnist Betsy A. Lehman died of a medication error in late 1994 at the nationally prominent Dana-Farber Cancer Institute.

Tye was a college classmate of Lehman's at Brown University. He was on his way to his 20th reunion when he got a tip that Newton-Wellesley Hospital had had several maternal deaths. The fatalities had not been reported to the state, as required, Tye was told. He soon confirmed the story and realized that a larger medical error story was staring him in the face. "I ended up never making it to the reunion," he said.

Massachusetts' status as a national leader in patient safety made it easier to do the series, Tye acknowledged. But he said reporters shouldn't feel shut out if their state doesn't yet collect errors or open them to the public. Reporters can still use malpractice suits to find cases. And Massachusetts can serve as a point of comparison. "As a reporter you can't lose," he said.

“Whether your state is at the head of the curve or behind the curve, that’s a good story.”

Tye said he considered using many different databases, including malpractice cases and records of the registration board for doctors. But he and his editors settled on the state’s hospital-error reports because they were the fairest. They included not only the state’s account of the incident but also the hospital’s response.

Tye chose 50 errors that were representative of hundreds of cases of errors the state had on file. He sent letters to each hospital telling them that the newspaper was going to write about an incident at their institution and asking whether they wanted to add anything to their previous responses. Executives in about 15 hospitals took up Tye’s offer.

One case concerned a 79-year-old retired chemist who went into a coma and died after doctors at Massachusetts General Hospital treated him for a stroke when he really was having an insulin reaction. Another mistake involved a blind, deaf and developmentally disabled patient who had a heart attack and died after she was fed through an intravenous line in her shoulder rather than the feeding tube in her stomach.

Tye discovered a link between two cases that the state had missed. A mother, Michele Masiello, died of a medical error just nine months after her daughter had been killed by another mistake. The connection may not have meant much to state investigators, but it became a lead anecdote for Tye. It showed that mistakes are common enough to strike twice in the same family.

Tye was struck by how differently the two hospitals dealt with him. Worcester Memorial, where Michele Masiello died, issued only a terse statement. Franciscan Children’s Hospital, where her daughter, Alexis, died, made available its CEO and a dozen senior staff members to discuss every aspect of the case. “Every question I would ask, the lawyer would whisper in [the CEO’s] ear, ‘Don’t answer it,’” Tye said. But “he answered every question.” Tye thinks that Franciscan Children’s came across better in the story because of its more open policy.

Similarly, hospital leaders still take divergent approaches to errors. James Conway, Dana-Farber’s CEO, talks often about the Betsy Lehman case in public speeches, Tye said. Other executives discuss their organizations’ errors as little as possible. “There’s denial at all levels.” Tye said. “In many places, the denial is at the top... What’s encouraging to me is how many senior executives have gotten beyond denial.”

Tye’s four-day series follows an arc from recounting horrendous personal cases to describing measures that some hospitals are taking to improve patient safety. He believes in trying to cover the system that produces the error. “To me, the right kind of reporting is to use the individual in context to show the broader problem,” he said. “A lot of this reporting was going to be finger-pointing. That’s irresistible. But you can do that at the same time you are putting it in context. ‘It’s not happening at one facility, but it’s happening all over.’”

“The only way you’re going to get people’s attention is to talk about dramatic cases,” he continued. “But we have to move beyond that.”

It also didn’t hurt that the paper gave Tye time to visit LDS Hospital (formerly the Latter-day Saints Hospital) in Salt Lake City, Utah, and the Hospital of the University of Pennsylvania in Philadelphia to see how errors were being uprooted. Tye also accompanied the Joint Commission on an inspection of an unnamed New England hospital to see how errors were treated in the accrediting process.

The series received an overwhelming response. Tye said it brought the highest number of reader responses in his 20 years as a reporter, tying with an equally popular story about a dog investigation. “The idea that medical errors tied with this greyhound series tells me something,” Tye said. “I was besieged by people wanting to tell me their medical story. Everybody out there had an error that had happened to them. This is not an abstract problem. People are savvy enough to know when something goes wrong.”

REVELATIONS IN A BANKRUPTCY FILING

“Medical Mistakes,” by Andrea Gerlin, *Philadelphia Inquirer*, four-part series starting Sept. 12, 1999

The bankruptcy of the Allegheny Health System’s Philadelphia hospitals proved to be a document bonanza for *Philadelphia Inquirer* reporter Andrea Gerlin. She managed to score a complete copy of mistakes at MCP Hospital, aka Medical College of Pennsylvania, founded in 1850 as the first U.S. medical school with a mission to train women doctors.

The documents were filed in U.S. Bankruptcy Court after Allegheny put MCP into Chapter 11 in July 1998. The papers contained a detailed accounting of all incidents from January 1989 through June 1998 at MCP. The material was never supposed to be publicly available, but the public-relations department for the hospital’s buyer, Tenet Healthcare Corp., provided Gerlin a copy of the document after she requested it by its formal title: Volume III of the Asset Purchase Agreement.

Gerlin’s four-part series, published in the *Philadelphia Inquirer* in September 1999, is one of the few that pierces a hospital’s inner sanctum and gives a complete view of all errors known to the administration.

The series was based on the hospital’s 300-page compendium of incidents that could become malpractice cases and cost the institution money. “I’d never seen anything quite like it,” Gerlin said. Most hospitals keep such records, which are protected from disclosure by patient confidentiality, attorney-client privilege and peer-review provisions in most states, including Pennsylvania.

“The first question I had to ask was whether this hospital’s record was typical of other hospitals or whether it was an aberration,” she said. “After I . . . showed it to several academics who did

work in this area, it was clear that the hospital was typical, not an outlier. That was startling, but then medical errors are so common in hospitals that most hospitals have plenty of experience with them.”

By coincidence, six months earlier, Gerlin had interviewed Dr. Lucian L. Leape of the Harvard School of Public Health, who described the results of a study of medical errors that he and his colleagues had published seven years before. Based on their data, Leape told her, more patients died due to medical errors in the United States each day than in a single jumbo-jet crash. But until the bankruptcy, Leape’s study about errors had seemed abstract and had gone largely unreported.

Gerlin soon realized the value of MCP’s internal documents. She lobbied her editors for time to pursue the story and spent the next six months reporting and writing.

She interviewed patients and their relatives, scoured court files and combed the medical literature. In a few cases, she talked with doctors involved in the cases. Most challenged the facts or rationalized the outcomes; none was frank. She also talked with regulators and researchers who fully acknowledged the scale and scope of errors and who discussed the resistance they encountered trying to change a culture in which denial ran deep.

Her series provided a disturbing picture of the extent and nature of mistakes at this one hospital. The cases included:

- Four patients who died after they received too much medication, the wrong medication, or no medication.
- An epilepsy patient who died and another left paralyzed after surgery by inexperienced, unsupervised residents.
- A man who died of a heart attack after sitting in the emergency room with dangerously elevated blood pressure for more than seven hours.
- An 18-year-old man who died after receiving the wrong type of blood in a transfusion after an automobile accident.
- Eight surgical patients who required second operations to retrieve sponges, cotton or metal instruments left inside their bodies.

Even the cases that Gerlin reviewed weren’t the complete picture. Caregivers keep many errors from administrators, Gerlin reported, and even more are kept from the public. Gerlin found several patients and relatives of patients whom the hospital had injured but who were never told about the injuries until she contacted them.

One challenge Gerlin faced was obtaining the cooperation of the hospital’s administration and its new owner. For three months, she tried to persuade them to talk openly about their experience with medical errors, emphasizing her potentially volatile findings. Instead, she said, they retreated into a bunker. Then, two and a half days before publication, they agreed to allow her to meet with the hospital’s chief of staff in the presence of its spokesman.

“The denial was extraordinary,” Gerlin said. “Here I had offered an opportunity to confront this problem head-on and convert it into something positive. Instead, they used a last-minute, two-hour interview to insist that the hospital was as safe as possible.”

After the series was published, Gerlin said, she received more than 250 phone calls and e-mails from readers in Philadelphia and around the country. Many sought her help in uncovering what they believed were medical errors practiced on them or their family members.

“So many people called to ask me to look into their situations that the *Inquirer* could have deployed its entire staff checking out their stories,” Gerlin said. “Some of what they reported was horrific, if true. In the end, we felt we had made that point and concentrated our efforts on the ensuing public-policy debate, which continues today.”

As a follow-up, she later reported that Philadelphia-area hospitals ignored requirements to report errors to the state health department. In the first year of a new law, fewer than 10 reports were made to the state, a fraction of the thousands that would have been expected by the area’s hospitals. The state health department looked the other way and claimed it lacked the resources to enforce the law.

“Medical errors make for compelling journalism,” Gerlin said. “They are life-and-death matters and nearly everyone can relate to stories about them. And this is an issue that isn’t going away soon because the health-care field has really just begun facing up to it.”

TRUTH SLEEPS IN THE MORGUE

“Plastic Surgery: The Risks You Take; Despite Increase in Deaths, Injuries, Doctors in Private Offices Escape State Oversight,” by Fred Schulte and Jenni Bergal, *Sun-Sentinel*, four-part series starting Nov. 29, 1998.

The Fort Lauderdale *Sun-Sentinel* series on cosmetic surgery started with one tip. A doctor called, upset that a female liposuction patient had been left alone overnight in a doctor’s office on the fifth floor of a bank building in Fort Lauderdale, Fla. The woman had woken up in the middle of the night because she couldn’t breathe and had realized that no one was watching over her. With tubes still inside her, the woman dragged herself to the elevator. She managed to get to the ground level and walk out to the street before collapsing. A passing cabdriver found her and saved her life by taking her to the hospital.

The reporters started by calling plastic surgeons. Some actually said the field needed more oversight. “They don’t usually say they want more regulation,” Schulte noted. Several also claimed to know another doctor who had had a patient death during liposuction. “They said someone needed to crack down on this particular doctor [who had handled the case of the woman left alone],” Schulte said. “They called his place a chop shop.” That doctor, the reporters later learned, had churned up a dozen malpractice lawsuits after practicing in Florida for just a year.

But he wasn't the only dangerous doctor. The reporters ended up going to three different county morgues to break the story open. "We had to look through every case. It was pretty tedious," Schulte said. They looked for deaths by pulmonary embolism – a blood clot blocking an artery in the lung – because a journal article had identified it as a common way that people die from liposuction.

Some morgues have a category for "therapeutic misadventure," Schulte said, which led to some cases. Once the reporters had flagged a possible case, they would look up the full details to see if cosmetic surgery had been involved.

Schulte and Bergal also searched malpractice records collected by the Florida Department of Insurance. They looked for plastic surgeons as a specialty and cases coded with the number 9 – meaning that a death had occurred. They also gathered more than 1,200 malpractice cases involving less-injured patients. Some patients, they learned, spent more than 10 hours under anesthesia while undergoing multiple procedures – a length of time that often causes problems. Other patients were so grossly overweight that they should never have had liposuction done at a doctor's office. In the end, "We had so many cases we couldn't write about them all," Schulte said.

BIT BY BIT: FINDING NURSES WHO KILL

"Dangerous Care: Nurses' Hidden Role in Medical Error," by Michael J. Berens, *Chicago Tribune*, three-part series starting Sept 10, 2000.

Chicago Tribune reporter Michael J. Berens discovered a truism about many medical databases. Individually, they are not worth that much to reporters. But stacked together and cross-linked, their collective power is amplified. Single voices turn into a chorus.

Over 10 months, Berens assembled some 3 million case records, mainly from five state and federal databases. That digital war chest led to some startling conclusions: Nurses nationwide have killed 1,720 hospital patients and injured 9,584 others from 1995 through 1999.

Berens said some people thought his final numbers were small. They pale beside the IOM estimates, and are undoubtedly a fraction of the nursing-related deaths that actually occurred. Nurses are thought to kill more patients than other health-care professionals because their ranks are the most numerous, Berens wrote.

But his data-sleuthing enabled him to nail down each case. These weren't estimates, as with the IOM report. Berens could document each of the 1,720 deaths and 9,584 injuries, and, in some cases, link them to a decline in nurse-staffing levels.

"It was like collecting little pieces of cheese," Berens said, in explaining his method. "I went around the country trying to make a whole wedge."

Berens started by snapping up MAUDE — the medical device database of the U.S. Food and Drug Administration. The 1.3 million-record database — known formally as the Manufacturer and User Facility Device Experience Database — described incidents involving every kind of medical device from syringes and bed rails to defibrillators and infusion pumps. The database can be downloaded from the FDA Web site, and it provides a wealth of information on many kinds of error. Berens found many interesting cases he never ended up using. But MAUDE helped crystallize his thinking. He decided to focus on infusion pumps because only nurses operate them.

MAUDE was no slam-dunk by itself. It gave dates but no hospital names. To make the information more useful, Berens would have to link it to other databases. He turned to hospital investigations by the U.S. Health Care Financing Administration (now called the Centers for Medicare & Medicaid Services). These reports proved valuable because they identified hospitals with low nurse-staffing levels, among other things. This data initially was hard to get. Berens got nowhere when he asked the agency directly for its investigation reports.

Berens, however, learned that HCFA hires the states to do investigations. So the states could also provide him the documents. Illinois initially rejected the *Tribune's* request but came around after the paper's lawyers wrote that the documents were clearly considered public even by the federal government.

Berens' next stop was to get a list of all nurses disciplined in the United States over the last five years. The list is kept by the National Council of State Boards of Nursing. This Chicago-based nonprofit firmly refused Berens' request for data. But here, too, state records provided an alternate route. Berens learned that the council gives its records once a year to each state nursing agency. So by sending an information request to Illinois, Berens was able to score the entire national list. This included full details of infractions as well as the nurses' names, dates of birth and addresses. Berens could see how many had been disciplined for making a mistake on an infusion pump or for using drugs on the job.

He supplemented the national list by spending two weeks inputting all 1,500 case files of nurses cited by at the Illinois state board of nursing. And he also received cases from the California Nurses Association, which keeps a database to track errors caused by poor staffing.

His stash was adding up to something.

Berens' series drew fire from nurses, especially for its headlines, which stated: "Nursing mistakes kill, injure thousands." Many nurses complained that they were being blamed for factors that were often system mistakes and beyond their control.

Berens said there's some validity to the nurses' feelings. But he said it's also wrong not to look at the individual's responsibility. A reporter, he said, has to see both points of view.

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