A preemie delivered at New York Infirmary/Beekman Downtown Hospital, New York City, suffers brain damage from oxygen deprivation because a resident delays care a few hours after birth. Plaintiff verdict against the hospital: $90.3 million.

Breast cancer spreads to the bones and liver of a 42-year-old woman because mammogram results from the University of Miami/Jackson Memorial Health Center in Florida do not reach her in the mail. Plaintiff verdict against doctor and hospital: $8 million.

A nurse fails to administer a prescribed antibiotic to a 53-year-old man prior to surgery for an obstructed bowel at Botsford Hospital, Farmington Hills, Mich. The patient develops gangrene and requires amputation of both of his legs below the knees. Plaintiff verdict against the hospital: $4.7 million.

These cases, plucked from the files of Horsham, Pa.-based Jury Verdict Research, exemplify three of the most common reasons plaintiffs win settlements or judgments against hospitals—delayed care, medication errors and diagnosis failures.

Precipitated by such costly lawsuits, the national spotlight began to shine on the nascent patient safety movement beginning with a 1991 published Harvard University study of patient injuries in acute care hospitals in New York state, and came under the full glare of public scrutiny with the landmark 1999 Institute of Medicine report, “To Err is Human.”

Medical literature now abounds with proven methods for reducing errors. Among them: evidence-based medicine, computerized physician order entry (CPOE) for medication orders, pharmaceutical bar coding and failure mode effects analysis, which is a way of predicting bad outcomes used by the military, aerospace and automotive industries.

Why isn’t every hospital using these tried and tested methods? Many hospitals have adopted some of them, but others are expensive and difficult to put in place. Within the next 10 years, however, most hospitals will acquire new systems and technologies that will prevent injury and serve as “lawyer repellents,” according to experts such as James Bagian, M.D., P.E., director of the VA National Center for Patient Safety, Ann Arbor, Mich.

“You will never be able to eliminate all of what is considered medical malpractice,” says Bill McDonough, senior vice president of New York City-based Marsh Inc., a medical malpractice...
insurance broker for approximately 2,000 U.S. hospitals and health systems. “Even when people are the best at what they do, unfortunately they make mistakes.” Still, studies by Harvard researcher Lucian Leape, M.D., demonstrate that hospital injuries can be reduced by 20 to 70 percent.

Institutions that do not improve safety may continue to suffer financial and human losses. The average 250-bed hospital (or its malpractice insurance carriers) spends the equivalent of the cost of a new MRI unit—between $300,000 and $1 million—annually defending medical malpractice lawsuits, not including settlements and judgments, McDonough says. Lawsuits also jeopardize the ability of hospitals to retain physicians and nurses, exacerbating an already difficult nationwide problem. “It’s a horrific thing for a clinician to go through, affecting their ability to continue working, their marriage and their families,” McDonough says. Such losses do not even touch upon the additional loss of community confidence that springs from negative publicity.

The expense of court cases offers another pressing reason to avoid lawsuits. Juries are more likely to punish institutions than doctors because hospitals are perceived as faceless entities with large wallets. Hospitals pay claims in 50 percent of court cases brought, while doctors pay in 30 percent of claims. Median plaintiff awards against hospitals alone are $500,000, according to Jury Verdict Research.

Risk managers report that many cases spring from community doctors who make hospitals chronic co-defendants, dragged repeatedly into court solely because of that physician’s troublesome behavior, combined with a “deep pockets” mentality on the part of patients and their lawyers.

Hospitals walk a fine line between doing everything possible to make community doctors welcome, and disciplining “outliers.” But they can no longer afford doctors who might bring in considerable revenue but whose performance threatens a facility’s financial health, according to National Quality Forum board member, William Golden, M.D. Moreover, he adds,
The reputation of the institution is at stake since the collective behavior of the medical staff influences the public perception of the institution.”

In truth, hospitals have always had a tool chest of medical malpractice fix-it devices to curb physician behavior that they have been reluctant to employ. Among the recommendations of Pamela Para, R.N., of the American Society for Healthcare Risk Management:

• Trustees could encourage malpractice insurers to reduce premiums for clinicians who take risk management/patient safety classes.

• Through medical staff bylaws, trustees could set medical malpractice policy limits based on whether or not physicians applying for privileges have been trained in risk management/patient safety.

• When physicians come up for credentialing, hospital administration could mandate risk management/patient safety training.

• Trustees could make patient safety a priority. “Everyone will say it’s a good idea but it needs board leadership to make it happen,” National Quality Forum’s Golden says.

Here, then, are the top 10 most common causes of medical malpractice lawsuits against hospitals, collected from Jury Verdict Research, Marsh Inc., and the Boston-based Risk Management Foundation. They are followed by a range of potential solutions suggested by some of the country’s leading risk managers and patient safety experts.

1. Problem: Medication Errors
Medication errors involve cases where patients allege they were given the wrong medication, the wrong dose, in the wrong form or place, at the wrong time, or not given their medication at all. Orders can be written incorrectly or illegibly by doctors, read incorrectly by nurses, filled incorrectly by pharmacists, and administered to the wrong patient. This problem has received more attention than all other patient safety issues. Yet, the majority of prescriptions are still handwritten.

Solutions include CPOE, robots, bar coding, automated drug dispensing, and other non-technology-driven methods.

CPOE. Less than 10 percent of U.S. hospitals use CPOE technology, even though it has been proven to reduce prescribing errors by 55 to 88 percent, according to studies led by David Bates, M.D., chief of general medicine at Boston’s Brigham and Women’s Hospital and David Classen, M.D., assistant professor of medicine, University of Utah, Salt Lake City. CPOE eliminates errors caused by misreading or misinterpreting handwritten instructions, intercepts orders that could result in adverse drug reactions, and highlights medication orders that deviate from standard protocols.

CPOE, however, is no panacea for medication errors. The software has to mesh with existing lab and hospital pharmacy information systems. And, there is still the human element—doctors can override the programs. What’s more, resistant doctors sometimes perceive entering information into a computer as clerical work. And systems that cost millions of dollars take years to fully install. In published reports, a CPOE system at the 726-bed Brigham and Women’s was estimated to cost $1.9 million, with annual maintenance of $500,000. Net savings, however, was between $5 million and $10 million annually when the avoided costs of patient injuries, admissions for drug errors, malpractice lawsuits and extra work generated by non-life-threatening medication errors were taken into account.

Robots. Robots perform repetitive, mundane tasks more accurately than humans. They can automate pharmacy storage, retrieval and medication dispensing. The estimated cost of installing a robot is $1 million to $2 million.

Bar Coding. Bar coding for drugs, vaccines and blood products is implemented in the same way groceries are priced. Bar codes have been proven to reduce errors by 65 to 86 percent, but the FDA estimates it will cost U.S. hospitals and other organizations $7.2 billion to incorporate bar code readers and related technology into their systems. For nurses, bar codes represent a significant change in culture. Rather than keeping paper patient records, they will push around laptops on carts, checking patient wristbands to verify medication accuracy.

MedStation PYXIS, Omnicell and Others. These are automated drug dispensing systems at nursing stations that function like ATMs with PIN number/biometric access, delivering precise amounts of prescribed drugs. Estimated cost: up to $1 million over five years.

Non-Technology. Smaller hospitals with tighter budgets can rely on several nonsoftware methods for improving patient safety. Among them:

• Root cause analysis—hospital employees analyze a variety of near-miss medication mistakes to learn what human factors create problems.

• Readback—originally an Air Force safety tool, where the recipient of telephone or verbal physician orders repeats the message back to the physician to ensure clarity and accuracy.

• Doublecheck—encourages prescribers and those who deliver medication to check and doublecheck—is it the right drug, the right dosage and the right patient?

• Pharmacy rounds—pharmacists in facility satellite offices go on patient rounds with physicians so that medication errors can be identified on the spot.

• Failure mode effects analysis—identifies and prevents failures before they occur. In 2001, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) began requiring an annual proactive risk assessment for hospital accreditation.

2. Problem: Diagnosis Failure
Diagnosis failures are defined as instances where patients claim an incorrect diagnosis delayed their treatment and/or resulted in improper treatment. This is a common claim, particularly in cancer treatment. The problem often happens in emergency rooms, but it also occurs on med-surg floors and in radiology when reading fracture and mammography X-rays.

Solutions include evidence-based medicine, and coordination of care between clinicians and information technicians to provide reminders and avoid slips-ups. Requiring physicians to use published protocols—what doctors often call, “cookbook medicine”—is an important defense tool. Specialty societies design these protocols; the Centers for Medicare and Medicaid Service (CMS) and JCAHO are developing them; but local hos-
Hospital adaptation is critical if a protocol requires an expensive medication or piece of equipment that the hospital can't afford. For example, a treatment for heart problems may be an angiogram, which may not be readily available at a small, rural hospital. A child with eye problems may require a referral to a pediatric ophthalmologist, who may be located hundreds of miles away.

3. Problem: Negligent Supervision

These involve cases where patients allege they were injured when their activities, or the activities of other patients, were not sufficiently monitored. This claim is most often lodged against teaching hospitals where medical students, residents and fellows are sometimes assumed to be stand-ins for absent attending physicians. Dangers arise when a rogue, overconfident trainee tries to resolve a problem without adequate supervision. To a lesser extent, this may involve nurse practitioners and physician assistants as well. Solutions include standardizing how residency programs are managed; creating and enforcing more stringent guidelines in which supervision is well-defined and mandatory; and following CMS supervision rules.

4. Problem: Delayed Treatment

These are instances in which patients allege treatment was unnecessarily or unreasonably delayed. In some cases, patients claim the delay caused additional injury. Hospitals lose these cases at trial 39 percent of the time. Solutions include failure mode effects analysis, proactive risk assessment and root cause analysis. The purpose is to redesign how care is delivered. Examples include: developing a tickler system to alert physicians to abnormal reports; following up to make sure faxes are received; and maintaining logs at both hospitals and private offices to track information exchanges between providers, ensuring that lab, X-ray and procedure reports do not fall through the cracks. "The legal system will find ways to hold institutions accountable," Golden says. "But if the institution documents good-faith efforts, perhaps it will fare better if challenged."

5. Problem: Failure to Obtain Consent

These involve instances where patients contend they were not given adequate information to make an informed decision about their treatment. Hospital leaders have worked on correcting this problem for years, and find it surprising that the problem still persists. A typical example would involve a patient who dies from anesthesia, and his family claims no one spoke to them about risks. Patients win these cases at trial only 26 percent of the time, according to a 2002 Jury Verdict Research report, "Medical Malpractice Verdicts, Settlements and Statistical Analysis" (LRP Publications). Solutions include videotapes, CD-ROMs and clear patient explanations. Hospital staff have patients watch a program at the facility explaining the risks involved in a procedure. After the program, patients sign a form attesting that they watched and understood what was presented.

6. Problem: Lack of Proper Credentialing or Technical Skill

This claim is made when doctors perform procedures or surgeries for which they have little experience or inadequate skill. A frequent outcome is organ perforation. Solutions include mandating simulation programs where doctors repeatedly practice a procedure or surgery; requiring physicians to attend professional society refresher courses; creating a treatment standard, or asking physician specialty societies for their standards for performing a surgery or proce-
dure. Even if a physician meets specialty guidelines, "there is no guarantee nothing bad will happen, but it decreases the probability," VA patient safety director Bagian says.

Some hospitals are already getting tough. McDonough relates, "One Chicago area general surgeon who wanted to expand his practice into bariatric surgery refused to provide documentation he had completed training and demonstrate he had practiced this type of surgery. His privileges were suspended."

7. Problem: Unexpected Death
Death is unavoidable, and interventions futile in certain instances as, for example, when patients do not know they will have an allergic reaction to medication. However, there are ways to prevent certain deaths.

Solutions include requiring the clinical staff to take thorough patient histories that include past medical treatments; herbal, over-the-counter and prescription drugs; and recent life events. For example, if a patient scheduled for a hernia operation mentions that he has been unable to climb two flights of stairs without experiencing tightness in his chest, it could indicate ischemic heart disease, which may not have been apparent on exam, Bagian says, and which could influence how the surgery is performed. Patients with complicated histories should bring all of their pill bottles to the hospital before an elective procedure, or, at the very least, a list of all their medications.

Doctors typically want to close the file on a bad outcome, but the patient file contains a wealth of information that could prevent the same outcome from occurring again. Hospital safety teams should examine the cases thoroughly to determine if early clues were ignored. Learn from errors and developing abstracts from these cases.

8. Problem: Iatrogenic Injury, Nosocomial and Wound Infections, Fractures
The Centers for Disease Control estimates that two million U.S. patients acquire infections in hospitals each year, and about 90,000 of these patients die as a result. Infections also cause care complications. Additionally, patients frequently claim they were injured when they attempted to leave their beds without assistance, when they were allowed to move about while highly medicated, or when they were assaulted or otherwise injured by an unattended patient. Of all types of malpractice cases, patients have the highest chance—45 percent—of winning these cases at trial according to the 2002 Jury Verdict Research report.

Solutions to infections include the most basic and effective one—hand washing. Swiss and American studies have demonstrated that health care-acquired infections go down as adherence to hand hygiene goes up. Hospitals should enforce 2002 CDC Hand Hygiene guidelines requiring hand washing or use of alcohol-based hand rubs to reduce overall infection rates. Glowing should also be universally encouraged. For falls and other types of physical injuries, fall prevention programs teach how to predict which patients are likely to fall, and stipulate that orders be given specifying which patients may not be permitted to walk on their own. In addition, patients who are in danger of falling should be restrained.

9. Problem: Pain and Suffering, Emotional Distress
Patients sometimes come out of surgery or procedures with unrealistic expectations of what they will be able to accomplish when they return home. They could experience unexpected paralysis; they may not be able to resume normal activities such as driving; their relationships may be unexpectedly stressed.

Solutions include having physicians apprise patients prior to undergoing a procedure of the best and worst case scenarios following the procedure, including the possibility of death and disability if warranted. They should also explain how long patients should expect convalescence and rehabilitation to take. Some patients should be dissuaded from undergoing an elective surgery or procedures.

10. Problem: Lack of Teamwork, Communication
Particularly in surgical and obstetrical areas, when different staff members monitor patients over time, they may see worrisome signs and fail to let their team members know. This often happens in cases when hospitalized women are in labor or when surgical nurses, watching patients undergo long surgeries, notice warning signs of patient distress but are requested not to speak to surgeons who are concentrating. It is also common when patients are transferred from one doctor to another, or from one hospital floor to another.

Solutions include team training, such as MedTeam, an approach that draws lessons from military aviation. As applied to medicine, it improves patient safety patient satisfaction and employee satisfaction. At least 16 U.S. hospitals use MedTeam, including Beaumont Royal Oaks and U/Michigan Health System in Michigan.

Also, electronic medical records enable notes, lab reports and studies to be accessible to entire hospital staffs, "so they don't have to thumb through a lot of scrawl," says the VA's Bagian.

Human errors that result in what lawyers call "medical malpractice" or what hospital administrators often term "bad outcomes" can be significantly reduced. By using proven techniques borrowed from the military and other industries to predict and prevent error, including failure mode effects analysis, root cause analysis, readback and doublecheck, hospitals may reduce their exposure to lawsuits. Where does this culture of patient safety begin? With the board.

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