

February
2004

Volume 23

Number 4

FORUM

© 2004 Risk Management Foundation of the Harvard Medical Institutions



RISK MANAGEMENT FOUNDATION HARVARD MEDICAL INSTITUTIONS

Exploring Patient Safety in the OR

Issue Editor: Kathleen Dwyer

- 3 Case Study: Missed Complication
- 4 Commentary: Small Things Are Big
by Kathleen Dwyer, MS
- 5 Analysis of CRICO Surgery-related Cases
by Kathleen Dwyer, MS
- 10 Surgical Malpractice: Myths and Realities
by William Berry, MD
- 12 Common Misconceptions Among Surgeons
Named in Malpractice Cases
by John D. Cassidy, JD, and M. Kate Welti, RN, JD
- 14 Next Steps in Physician-patient Communication
by James Herndon, MD, MBA
- 18 Practical Steps to a Systems-based Surgical Practice
by David Roberson, MD

Missed Complication

A 47-year-old man died from internal bleeding following back surgery.

by Kathleen Dwyer, MS

Kathy Dwyer is a Loss Prevention Specialist for Risk Management Foundation of the Harvard Medical Institutions.

Clinical Sequence

A 47-year-old underwent surgical repair of his herniated left L4-L5 disk. The staff neurosurgeon scheduled the operation and was on-hand during the initial positioning. The surgery was performed by the chief neurosurgical resident who had done approximately 100 of these procedures. Near the end, the staff neurosurgeon returned to inspect the site and removed a small disk fragment.

Post-operatively, the patient's blood pressure initially dropped to 90/30 (40 points below his pre-operative systolic reading) and his heart rate increased. The chief neurosurgery resident saw the patient and ordered extra fluids. The patient's systolic pressure came up to 100; soon after, the chief neurosurgery resident went off duty and an anesthesia resident assumed responsibility. Three times, nurses informed the anesthesia resident of the patient's persistent low blood pressure. No further diagnostic testing was performed and he was not examined. At 8:30 p.m., the anesthesia resident decided to transfer the patient to the floor. Upon arrival to the floor, the patient's blood pressure was 86/43. At 10:00 p.m., he was given Percocet for relief of abdominal pain. No other record of his vital signs was made until 10:40 p.m.

At that time, the patient again became unresponsive when his systolic blood pressure dipped below 60. After the first event, fluids and oxygen helped, but a second event was followed by progressive respiratory decline leading to apnea—at which point a code was called. At that time, his hematocrit was 14.

The patient was transferred to the medical intensive care unit. His abdomen was distended; an emergency thoracotomy was done and the aorta clamped. He was taken to the OR for a laparotomy; a large amount of blood was found in the peritoneal cavity and the surgeon could see that the left iliac vein was avulsed from the inferior vena cava (apparently triggered when bone fragments adhered to it were removed). After receiving massive amounts of blood and blood products, the patient developed a coagulopathy. With no chance for his recovery, the patient's family chose to discontinue life support.

Claim Sequence

The patient's family sued the residents and the attending surgeon alleging negligent surgery and a delay in recognizing postoperative complications. The case was settled in excess of \$1 million.

Discussion Points

What were this patient's expectations?

During the consent discussion, the patient was informed that the laminectomy was a simple procedure and that he would be able to return home from the hospital the next day. As the staff neurosurgeon did not disclose the extent to which the neurosurgical resident would be involved in this surgery, the patient probably expected the attending to be fully in charge.

Because no provider seemed concerned about his low blood pressure or his complaints of abdominal discomfort (the floor nurse advised him that the pain was probably the result of the way he was positioned on the operating room table, gave him pain medication, and left the room) he may well have assumed his situation was under control.

What led to the fatal outcome in this case?

A series of small events caused the adverse outcome. The patient suffered from a rare vascular injury that began when the bone fragments were removed (using the pituitary rongeur), weakening the wall of the iliac vein which later developed into active bleeding. The most critical errors were interpreting the blood pressure as normal and not appreciating that the potential existed that this patient was bleeding internally. In this case, the patient was not tachycardic. To the residents, his condition did not present a clear indication of bleeding. Most importantly, the residents were not expecting that disk surgery would cause trouble in the recovery period—and therefore did not recognize the significance of his blood pressure—and the need to call for help.

Where does the criticism fall most heavily in this case?

The greatest weakness in the case was the monitoring that followed this patient in the recovery room and then to the floor. The physicians did not seriously exclude a vascular injury. Missing multiple signs of trouble with his blood pressure and the loss of critical information at the handoffs meant that the patient's underlying problem went undetected until it was too late to intervene. The missed clues and opportunities included:

- a recognized complication of the procedure (vascular injury) is a potential cause of low blood pressure;
- the patient received three liters of intravenous fluid in the recovery room and his systolic pressure, which had been in the 140s prior to surgery, never rose above 100;
- no one monitored the vital signs on a frequent basis;
- no one ordered a hematocrit or blood gases;
- no one performed an abdominal exam following the lumbar surgery;
- no one re-examined the facts following repeated episodes of unresponsiveness; and
- neither the neurosurgery resident, the anesthesia resident, nor the nurses called for help from senior staff.

What communication improvements might prevent similar adverse outcomes?

- Generate a complete differential diagnosis; if a patient's case takes an unexpected turn, step back and re-think the initial assumptions.
- Explore and address any cultural barriers to asking for help.
- Clarify the lines of communication and responsibility between residents and senior staff.
- Consider communication protocols around handoffs, e.g., a standardized checklist.
- Encourage staff to go up the chain of command if questions are not answered.

Commentary: Small Things Are Big

by Kathleen Dwyer, MS

Kathy Dwyer is a Loss Prevention Specialist for Risk Management Foundation of the Harvard Medical Institutions.

By most measures, surgery is risky work: inherent uncertainty, complexity, rapidly changing priorities, and dependence on teamwork. Preventable complications happen even in the best of hands, but, most often, they are not a sign of negligence or substandard care, merely a reflection of human limitations.

Given the work of James Reason and others, patient harm can, almost always, be traced back to an alignment of human error and systems shortcomings.¹⁻³

Tragic events are, almost always, the result of many small errors that only in hindsight reveal themselves to be part of a larger, cascading problem. At some point, too many failures line up and harm occurs. In the vast majority of CRICO's surgery-related cases—as in all malpractice cases—everyone involved has the right intention, but those intentions are blocked or sidetracked by human factors, poor system design, and individual shortcomings. Unless changes are made, little stands in the way to prevent another similar event.

With an eye toward identifying high-risk situations and behaviors that pose a threat to surgery patients, Risk Management Foundation has been studying these alignments of human and systems problems. Analysis of CRICO surgery-related claims filed from 1998-2002 (see page 5) suggests several patterns and situations that contribute to the accusation of malpractice:

- lack of communication among physicians resulting in misunderstandings,
- inexperience and cultural barriers to asking for help,
- lack of effective transfer of meaningful and accurate information to clinicians during handoffs,
- lack of actively engaging patients in the decision-making process, and
- lack of active follow-up by surgeons (e.g., abnormal test results; post discharge treatment).

Not only do small errors often converge to cause big problems, but small errors by individuals reflect bigger systemic issues.



1. A majority of the complications that prompted surgery patients to sue their doctors are well-recognized complications. And, while a surgical injury alone may not be grounds for an accusation of negligence, failure to timely recognize and treat complications can be. This suggests that communication—both pre- and post-operatively—plays a critical role in strengthening the surgeon-patient relationship, perhaps more so than many clinicians realize.

2. In all of the malpractice case files reviewed, patients and families indicated anger directed at individual practitioners. Among the recurring reasons:
- the indications for surgery were not clear,
 - their surgeon repeatedly failed to provide clear answers to their questions,
 - residents who were allowed by their surgeon to call the shots failed to recognize that the patient was not recovering as expected,
 - no one of the many caregivers seemed to be in charge, and
 - unfortunate outcomes were exacerbated by communication breakdowns (often silence).

One thing is perfectly clear: surgical care in a complex environment requires better systems of communication and responsibility. This *Forum* sets forth pieces of a framework: to learn from honest mistakes, to highlight some dangers that have predisposed surgeons and patients to errors, and to provide a broad outline for a changing mindset through which surgeons and institutions might effectively minimize the impact of human fallibility and strengthen the patient-physician relationship. ■

References

1. Reason JT. Understanding adverse events: the human factor. In: Vincent C, ed. *Clinical Risk Management: Enhancing Patient Safety*. 2nd ed. London, UK: BMJ Books; 2001.
2. Vincent C, et al. How to investigate and analyse clinical incidents: clinical risk unit and association of litigation and risk management protocol. *British Medical Journal*. 2000;320:777-81.
3. Leape LL. Error in Medicine. *Journal of the American Medical Association*. 1994;272:1851-57.

Analysis of CRICO Surgery-related Cases

by Kathleen Dwyer, MS

Kathy Dwyer is a Loss Prevention Specialist for Risk Management Foundation of the Harvard Medical Institutions.

Surgery-related cases are the second leading cause of litigation in the CRICO system (behind diagnosis-related claims). The primary causes are errors in reasoning and technique-related complications (mostly *recognized* complications of the procedure). But virtually all of the cases that prompted a medical malpractice claim involved myriad smaller issues that, when added together, gave an overall impression of sub-optimal coordination of the patient's care and the lack of effective communication. And while 77 percent of the cases closed did not result in payment to the claimant, the emotional price for all parties involved was often sizable.

From 1998–2002, 290 patients or families filed suits against 407 CRICO-insured surgeons.¹ Although this number is small given the volume of procedures², it represents many affected parties and the redirection of precious time and resources (more than \$123 million in total losses).³

As would be expected, malpractice risk in the operating room was particularly high with nearly half of the cases stemming from procedures in the OR. Outpatient procedures, however, led to almost one-third of the claims. Although the frequency of surgery-related cases is relatively stable, the severity of injuries reported is increasing. In fact that the number of high-severity injury cases filed from 1998–2002 is 10 percent greater than for those filed from 1993–1997.

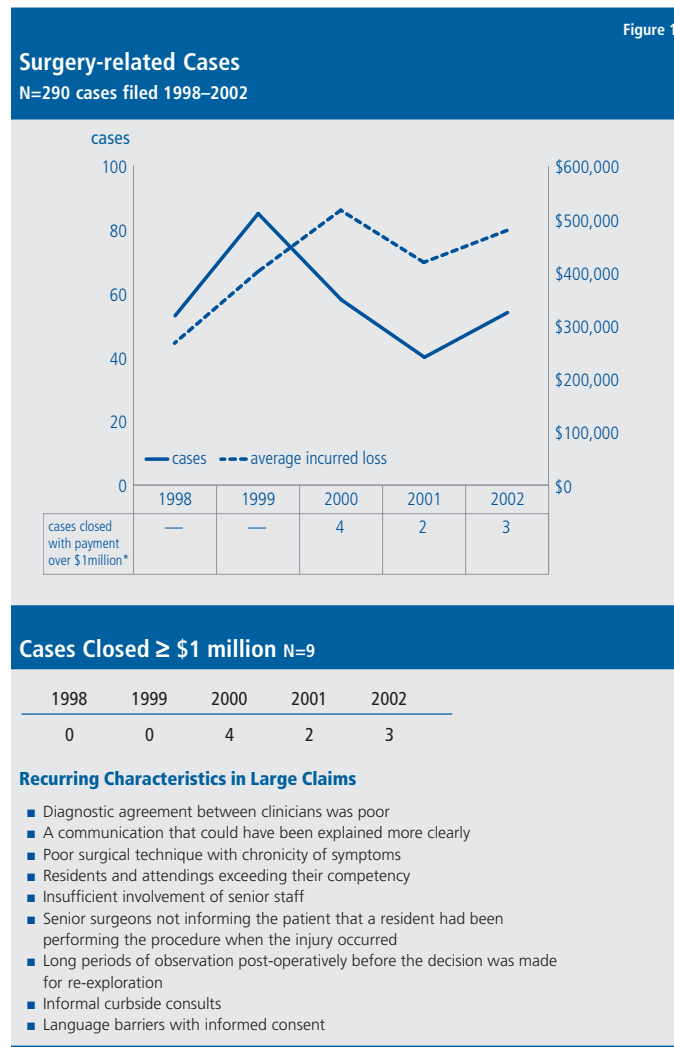
Sources of Patient Dissatisfaction

In general, surgical patients expect that their surgeon and the other caregivers will:

- use proper judgment in recommending procedures;
- make clear to them their particular risks associated with surgery;
- be the one who actually performs the surgery (or tells them otherwise);
- delegate the most difficult aspects of their care to the most competent individual; and
- timely recognize and treat postoperative complications.

When those expectations are unmet, patient or family anger is often a trigger for pursuing legal action, and the claimants in CRICO's surgery-related claims reflect that. Patient anger was reported in most files and, in many cases, they expressed the feeling that—during their surgical experience—their clinicians failed to serve as their advocate when complications arose. And, as a direct result of poor or inadequate communication, patients or families were led to believe that fault or blame was appropriate. In particular:

- The indications for surgery were not clear to the patient.
- The surgeon did not listen to the patient (e.g., did not return phone calls, did not see the patient prior to discharge) or failed to actively involve the patient



Continued on next page

Continued from previous page

in decision making (e.g., failed to elicit a patient or family opinion).

- During the post-operative period, the clinicians (some who may have exceeded their competency) did not recognize that the patient was not recovering as expected—even though the patient or family expressed concerns. In many cases, the significance of patient-reported pain following complex surgery

Risk Management Issues in Surgery Cases

Risk Management Foundation codes risk management issues identified in malpractice claims and suits, often more than one per case. For the 290 surgery-related cases analyzed for this review, the most common risk management issues were:

Clinical Judgment (23%)

- Cognitive errors and lack of careful evaluation: failures to vigorously pursue diagnosis and treatments as soon as possible when there was any suspicion of trouble.
- Inadequate pre-operative assessment: the surgeons lacked sufficient knowledge of the patient, often because they relied on the patient who was deficient in recalling his or her own medical history; failure to consult.
- Supervision that was too little, or too late: covering physicians not available; attendings were not present for critical aspects of the case.
- Significant complications were missed because incoming caregivers did not receive or did not act on crucial patient information, or because abnormal test results were not actively followed up.

Technical Skill (18%)

- Failures to protect adjacent organs; missed execution steps.
- Lack of knowledge of patient's risk factors for injury.
- Lack of experience.

Communication (16%)

- The informed consent process was neither procedure-specific, nor patient-specific. The patient was not actively involved in the decisionmaking process.
- Conflict issues among clinicians were not adequately resolved leading to misunderstandings.
- Discharge instructions were poorly written or poorly communicated to the patient.
- The patient and/or family was dissatisfied with the explanation from the clinicians or the administrators after an unexpected outcome.

Documentation Issues (12%)

- Criticism of prior care.
- Unclear documentation regarding adequate follow-up care.

ies was overlooked, leading to incomplete assessments and treatment delays.

- The clinical team did not have a coherent, coordinated plan for the patient's expected care needs and contingencies if things did not progress as planned.
- After an adverse outcome, the patient felt abandoned by the clinician who either said nothing or mishandled communication opportunities.

Sources of Surgical Error

Three primary factors contribute to surgical errors: 1) inexperience, 2) uncoordinated teamwork, and 3) communication breakdowns. Most, if not all, of CRICO's surgery-related claims were the result of a string of errors linked to one or more of the following sources:

Knowledge Deficits: Clinicians were unable to put the facts together due to thinking errors, (e.g., they failed to identify and respond to critical signs despite strongly suggestive evidence resulting in significant postoperative complications).

Inexperience: Clinicians at all levels of training and experience exceeded their competence, or the risky part of the surgery was delegated to the resident without adequate training.

Handoffs and Transitions: Given the multiple layers of care, those assuming care of a patient had incomplete information, or failed to act upon recommendations from other caregivers.

Organizational Culture: Hierarchical barriers impede communication; asking for help was a sign of weakness, a lack of intellect, and failure.

Human Factors: Excessive workloads and wishful thinking (e.g., they did not consider the diagnosis that could kill) may have predisposed surgeons to make errors.

Behavioral Issues: Shortcomings or idiosyncrasies impaired an individual's focus (e.g., a covering surgeon may not have been as fastidious about the patient's follow-up management as the attending surgeon; interprofessional rivalry was not resolved).

Using Claims Data to Reduce Future Harm

Malpractice claim data point to vulnerabilities in practice, uncover unmet patient expectations, and can serve

basis for creating prevention strategies. Following are three areas in which surgical departments might enhance patient care.

Supervision: Forging Clear Lines of Communication and Responsibility

Resident physicians accounted for 22 percent of the surgeon defendants (N=111/501).⁴ The most frequent allegation involving surgery residents was failure to timely recognize and/or treat complications. Lack of experience was found to be a critical issue. However, the availability of senior staff was also a concern.

Case Example 1

A 64-year-old obese male with a history of asthma underwent an uneventful nissen fundoplication but then developed acute respiratory distress syndrome requiring SICU admission. On morning rounds, the attending surgeon (who was also the SICU attending) decided to extubate the patient. Approximately 90 minutes later, a new SICU attending took over and determined that the central line needed to be changed due to a fever of unknown origin. The surgical resident felt that the central line was not the likely cause of the patient's increased temperature (she had recently changed the line herself) and voiced her concerns to the attending, who still wanted the line changed.

The patient was extubated and became progressively tachycardic (120s) and tachypnic (30s). One hour later, the anesthesiology resident placed the patient in the Trendelenburg position. When the patient became more tachypnic, the anesthesia resident asked him if he could remain in this position for the procedure; the patient said he could. Soon after, during the insertion of the new line, the patient became unresponsive. Intubation was unsuccessful and the patient suffered irreversible brain damage. The family chose to withdraw life support.

A lawsuit filed against the anesthesiology resident, general surgery resident, general surgery attending, and SICU nurse was settled for more than \$500,000.

Figure 2

Surgery-related Cases N=290 cases filed 1998–2002			
Clinician Defendants N=564			
Staff MDs*	371	66%	
Residents	111	20%	
Fellows	19	3%	
Nurses, Technicians, PAs	60	11%	
Mental Health Providers	3	<1%	
*Of the 501 MDs named, 407 were surgeons.			
Surgeon Defendants by Specialty N=407			
Specialty	Defendants	Rate/ PCY*	Median Payment
General Surgery	124	8.0	\$300,000
Orthopedics	81	10.2	\$537,000
Neurosurgery	42	15.2	\$725,000
Plastic Surgery	33	15.7	\$244,000
Urology	31	11.5	\$108,000
ENT	23	5.0	\$300,000
Ophthalmology	17	2.1	\$192,000
Cardiac Surgery	16	7.3	\$1,000,000
Oral Surgery	15	10.3	\$115,000
Thoracic Surgery	10	9.7	\$700,000
Vascular Surgery	8	5.1	\$360,000
Oncology Surgery	4	5.7	No payments
Hand Surgery	3	6.7	\$68,000
*The rate of defendants per 100 physician coverage years. One coverage year is credited for each full year of physician coverage per specialty.			

Contributing Factors

- Flawed decision-making/Inexperience: 1) the indications for the line change were unclear (the patient's fever was no higher than on previous days); and 2) when it was reasonably clear that he was failing his trial of extubation, proceeding to place the patient in a compromising body position.
- The anesthesia resident did not discuss patient's respiratory status with the team after the extubation or before the line change; she believed that the nurse told the surgical team of the patient's heart rate and respiratory rate prior to the line change—and that they still wanted the line changed.
- A conflict between the attending and resident regarding the overall plan was not resolved.

Opportunities for Improvement

- 1 Explore cultural barriers to asking for help and build credible structures for improving lines of communication and responsibility.
- 2 Provide assertiveness training for residents and nurses might help mitigate the risk of inexperience.
- 3 Develop communication protocols, goals, and checklists.⁵

Fostering Teamwork and Communication

Most of the surgery cases involved at least one communication event that contributed to patient harm or, at the very least, patient dissatisfaction. Examples include: failure in notification about abnormal test results, failures to communicate the operative plan, or failures to act on recommendations. In the case outlined below, a lack of communication and inadequate awareness of the situation may have contributed to the patient's paralysis.

Continued on next page

Continued from previous page

Case Example 2

A 21-year-old patient with scoliosis underwent an elective posterior dorsolumbar spinal fusion of T₃ through L₃ with insertion of Isola rods and wires. During the procedure, there was a decrease in amplitude of approximately 50 percent in the posterior tibial-evoked potential measure, signaling a loss of conduction from the patient's spine to her extremities. A 45-minute delay occurred as the technician first attempted to verify the drop in potential as an accurate reading (versus artifact). When no evoked potential was noted over a one-hour period, a wake-up test was initiated. The patient was unable to move her legs. The instrumentation was removed and the patient was diagnosed with ischemic vascular injury with irreversible paralysis at the T-6 level. A lawsuit filed against the supervising orthopedic surgeon and the resident who performed the surgery was settled in excess of \$1 million.

Contributing Factors

- Human factors: failure to act quickly on the data; false assumptions led to error.
- Inexperience: this was the resident's first scoliosis case (the fellow was away on vacation).
- Lack of situational awareness: key information was not made visible to the whole team; no one clinician stepped back to assess the situation and revise the plan. Delayed ordering of the wake-up test decreased the chances of reversing the ischemic damage.
- Patient expectations: paralysis was noted on the informed consent form as a risk factor. The resident had obtained the informed consent, however, no confirmatory questions and responses were documented that would indicate that the patient or family articulated an understanding of the risks. In fact, the patient's father claimed that he never heard the word "paralysis" used.
- Communication: contact between the technician and the surgeon immediately upon reduction in the evoked potential measure could have increased the defensibility.

Opportunities for Improvement

- 1 Team training to help the team adapt to rapidly changing situations.
- 2 Establish and adhere to appropriate standards of practice.

A Human Factors and Systems View of the OR

Errors in surgical care account for more than half of serious errors in hospital patients. CRICO, through RMF, funded the Surgery and Human Factors project, a prospective observational study in the OR to better understand surgery-related errors. A multidisciplinary team consisting of a surgeon and a human factors engineer observed complex general surgery cases in a large academic hospital.

The observational study advances the value of relevant human factors knowledge in improving patient safety. For example, observers identified several systemic factors that compromised patient safety in the OR—factors not readily detectable through self-reporting or chart review.

- Handoffs are particularly prone to information loss about case events, current status, and plans.
- Auxiliary workloads (e.g., retrieval of supplies, personnel, blood products, information) are poorly synchronized with predictably high workload or high-risk phases of the procedure.
- Counting protocols, in some cases, impose considerable stress on the nursing staff and distract them from more patient- and procedure-centered tasks.
- The factors that appeared to contribute to or compensate for adverse events and near misses can be identified via this observational process.

The observational study provided specific targets for intervention which are currently being tested and refined by the medical institution during the second phase of this project.

Engaging Patients in Decision Making

In many of the surgery cases reviewed for this analysis, the legal outcome turned on 1) whether or not the patients and their families were given enough information to understand the risks of the procedure they were consenting to, 2) the clinicians' communication of the risks, and 3) the patient's comprehension of the risks. The defense of some cases was complicated by medical records that did not reflect what the surgeon actually told the patient about available options and the likely prognosis, given the patient's risk factors and overall health status.

Case Example 3

A 42-year-old obese male developed an incisional hernia and was told by his primary care physician that he was a poor candidate for this elective surgery due to his obesity and chronic obstructive pulmonary disease. In response, the patient quit smoking but was not able to lose weight.

Figure 3

Surgery-related Cases N=290 cases filed 1998–2002		
Severity of Patient's Injury N=290		
Low	11	4%
Medium	150	52%
High	129	44%
	(52 cases resulted in death)	
Disposition N=170 closed cases		
Dismissed	70%	
Settled	22%	
Defense Verdict	7%	
Plaintiff Verdict	1%	

Several years later, the patient consulted a surgeon and the hernia repair was performed. Ten days postoperatively, the patient returned to the operating room for reduction of an incarcerated bowel, drainage of intraabdominal abscess, repair of small bowel perforation, and lysis of adhesions. Several months later, during I & D of the wound, the small bowel was perforated and the patient underwent surgery. As a result, an enterocutaneous fistula developed requiring subsequent repairs. In the lawsuit, the patient alleged that his surgeon did not tell him that his obesity affected the risk of failure associated with the hernia repair. The case was settled via binding arbitration for more than \$500,000.

Contributing Factors

- **Informed consent:** the informed consent process was incomplete, lacking a pre-operative discussion and documentation about the nature of the proposed procedure and the likely outcome.
- **Inexperience:** obtaining a preoperative consultation was overlooked; surgical skill errors caused complications.
- The patient was unaware that the chief surgical resident would perform the surgery.
- The patient was under the impression that the surgery would improve the quality of his life.
- The patient complained of incomplete and misleading information.

Opportunities for Improvement

- 1 Helping the patient fully understand and consider the justification for the risks of a surgical procedure is key to fostering realistic expectations and encouraging patients to accept certain responsibilities.
- 2 As part of the informed consent process, the attending surgeon should discuss with the patient the most common and the most severe complications.

Summary

Surgery is practiced amidst enormously complex systems. When problems arise, that complexity is at center stage. Surgical teams that communicate well amongst themselves can mitigate that complexity. Clinicians who communicate well with patients—from discussing what to expect to explaining unexpected outcomes—are in a much better position to avoid the loss of significant information and reduce the risk of litigation. ■

Educational Interventions

Individual surgeons, and surgical units seeking to make surgery safer and improve patient care can tackle the issue on a variety of education and training fronts.

- 1 Share information.
- 2 Encourage efforts to improve interdepartmental relationships between anesthesia, surgery, pathology, and nursing.
- 3 Offer assertiveness training in communication skills for residents and nurses.
- 4 Develop a system for educating medical students and residents re: what is likely to go wrong.
- 5 Justify the risk of surgery: shift from informed consent (and signing the form) to informed decision-making (actively involving the patient) taking into account the patient's values, preferences, and beliefs.
- 6 Improve documentation tools.
- 7 Integrate simulation into education and practice:
 - Specific skills-based training,
 - Coordinated crisis management, and
 - Non-technical skills training.
- 8 Encourage computer decision-support and clinical guidelines (much of surgical care is medical care).
- 9 Accept standardization of protocols and checklist to limit fallibility.
- 10 Formalize training in the **art** of supervision.
- 11 Develop systems to identify potentially unsafe residents, fellows, and attendings before they cause harm.
- 12 Teach models of effective communication with emphasis on role playing.
- 13 Identify and integrate human factors in equipment design, procedure and policy development, and in system redesign.
- 14 Implement a resident orientation program on patient safety.
- 15 Strive to be technically proficient.

Notes & References

1. Cases in which insured defendant was cardiac surgeon, ENT, general surgeon, neurosurgeon, oncology surgeon, ophthalmologist, oral surgeon, orthopedic surgeon, plastic surgeon, thoracic surgeon, urologist, or vascular surgeon. Cases naming obstetrics/gynecology and gynecology surgeons were excluded from this review.
2. From 1998–2002 approximately 960,000 inpatient and outpatient surgeries were performed at CRICO-insured institutions.
3. Payments made to claimants on closed cases plus expenses; reserves and expenses on open cases.
4. For the 78 malpractice cases filed from 1998–2002 naming CRICO-insured surgical residents: 42 percent were dismissed, 34 percent were settled out of court, 22 percent ended in a defense verdict via trial, and 2 percent were decided (via trial) in favor of the plaintiff. The average payment made on behalf of surgical residents was \$480,000.
5. Pronovost P, et al. Improving communication in the ICU using daily goals. *Journal of Critical Care*. 2003;18(2):71–5.

Surgical Malpractice: Myths and Realities

by William Berry, MD

Dr. Berry is a consultant for Risk Management Foundation of the Harvard Medical Institutions, a recent graduate of the Harvard School of Public Health, and a cardiac surgeon.

The fear of malpractice suits pervades medicine and grabs headlines because a malpractice suit is more than a possible claim on your assets. Even if a suit is successfully defended, you can still pay an emotional price: embarrassment, depression, and self-doubt. Why go there if you don't have too.

But how can you avoid going there? Which advice is helpful and which is just the perpetuation of malpractice mythology? A few myths shared among surgeons, are examined below.

Myth 1 *A consent form signed by the patient and a statement by the physician that “all risks, benefits, and alternatives to surgery” have been discussed, are adequate documentation of informed consent.*

Reality Creating truly “informed” consent is a process (not a piece of paper). Unfortunately, few of us are formally taught how to do this, and our poor instruction shows. Getting “the consent”—getting the form signed—is often a duty delegated to someone lower down on the totem pole. Too often, the attending surgeon doesn't do a great job of communicating with the patient or doesn't document very well what was said.

Patients only hear about 25 percent of what we say to them—even less if they are stressed, in pain, or preoccupied with other thoughts (“Who will help my family while I'm having surgery?” or “How am I going to pay for this?”). Most of us don't take the time to repeat important information because we assume it was heard and understood the first time we said it. And saying that all the patient's questions have been answered doesn't mean much if we don't give them adequate opportunity to ask.

What we need to do is provide counseling to our patients at every opportunity. We can all recall hours spent learning abnormalities of metabolism or the action of antibiotics, useful technical information. But, how much time did we spend learning how to teach people things? Teaching our patients, and each other, is a huge piece of what we do and we are ill prepared to do it.

Patients who sue for lack of informed consent are usually saying, “Things didn't turn out the way that I heard you say they would and I wasn't prepared for this.” While a signed consent form might help to protect you, your best insurance is a well-prepared patient and family.

Myth 2 *“Perfect” surgeons won't be sued.*

Reality Physicians often think that the quality of their work is tied to technical competence: one's work is measured on the basis of one's knowledge, judgment,

and technical maneuvers (“If I am a great technical surgeon, no one will sue me”). Patients don't always see it that way. They care about the courtesy with which they are treated, how their questions are answered, and how easy it is to park when they see you. What may be superficial to you, is important to them, as is how you treat them as a person before they become “a procedure.”

Patients expect you to be technically competent, but in our service-based economy, many patients also expect the “fluff,” (other industries call it customer service) that often is lacking in medicine. In our defense, customer service is not so easy in an environment where patients are often dehumanized. Patients become their diseases (the hypertensive in 205...the diabetic in 207...the kidney in 211) and, in the process, less human.

The perception (or reality) of “poor service” spices the recipe for an allegation of malpractice. Mix a serious medical problem with a bad outcome, add a dash of dehumanizing, a pinch of arrogance, and a lawsuit is likely. If the medicine was perfect, the lawsuit is unlikely to succeed, but nevertheless, it is a tremendous nuisance.

An effective countermeasure is to remember to treat each patient the same way that you would like yourself or a family member to be treated in the same situation. Competence is important and each of us is held to high standards for it. But competence alone will not protect you. A little caring is inexpensive insurance.

Myth 3 *Protocols are for sissies.*

Reality Physicians are asked to deal with a daunting and ever expanding volume of information. No one person can remember everything; what we can remember is confounded during stressful clinical situations.

Ever gone to a “code” where things seemed a little disorganized? Where the code team is so focused on the arrhythmia that it forgets to ventilate the patient. We all know that there are well-elucidated protocols for the treatment of many emergency conditions. Why is it that we consider it a matter of “pride” to memorize things that don't need to be memorized? You can't run a code without a crash cart. Why can't the crash cart have a protocol on it? And if it does, why doesn't it get followed?

Even for routine tasks, airplane pilots use checklists. The senior pilot who has done thousands of takeoffs uses a checklist. A routine, mundane, yet complex task, where the omission of steps can lead to disaster, deserves a protocol to guide management and a protocol that de-

serves to be followed. Protocols aren't for sissies. They are for pilots, nuclear power plant operators, and physicians. We are fallible and distractible. Protocols simply help us take care of sick patients while under stress.

Myth 4 *Residents need times when they are minimally supervised, in order to learn effectively.*

Reality Residency should be a time of mentoring and apprenticeship, not unfettered experimentation. Residents and fellows need us as mentors to guide them through the care of difficult patients. We cannot substitute for learning through actual experience, but we also cannot substitute for having the residents benefit from *our* experience.

Problems with communication between house staff and attendings lead to serious problems in patient care; poor outcomes; and, often, lawsuits. While house staff are your eyes, ears, and hands when you are not in the hospital, they need your brain and judgment to do their jobs competently. And there is only one way for them to get that: communicating with you in person, on rounds, in the OR, and by telephone.

While it may be a "point of honor" to not call an attending at night, the "point" is missed if patient injury is the result of inexperience leading to bad judgments. Some things in medicine happen very quickly and the damage that results from incorrect decision making can be irreversible. While no surgeon can be "there" all of the time, the link between house staff and attendings needs to be close enough that you are essentially there all the time. Residents and fellows have their futures in which to earn gray hairs; residency and fellowship is not the time to learn on patients by trial and error.

Myth 5 *My ability to communicate with other physicians, nurses, and patients is superfluous "touchy-feely" stuff. They should just do their jobs like I tell them to.*

Reality Miscommunication between physicians, physicians and nurses, attendings and house staff, and physicians and their patients lies at the center of many bad outcomes (and virtually every malpractice claim). We talk at each other, past each other, but not with each other. Too often, communication is treated as a one-way mountain road, with information traveling downhill but not back up.

We stifle communication in many ways. Arrogance or an intimidating attitude (perceived or real) can discourage valuable information from being made available to you. You cannot possibly act on information that you do not have, but by not actively encouraging communication, you blind yourself to what is really going on. Teaching staff probably spend the least amount of time at the bedside and yet play the most important role in guiding patient care. In order to take the best care of your patients, you need access to relevant information. If you make yourself appear unresponsive, that information will never make its way to you. This is not to say that physician's orders are really physician suggestions up for continuous debate. But it does suggest an openness to dialog and an open mind to other viewpoints and ideas. The care that your patients receive will improve as will your work relationships.

Myth 6 *I can't really protect myself from a lawsuit.*

Reality Some malpractice suits really are lightning strikes; you did everything right but were in the wrong place at the wrong time. Many are not, however, and you can do quite a bit to avoid those.

- 1 Practice the best medicine that you know how to practice. Stay current in your field.
- 2 Know your limitations. Ask for consultations with other specialists. Don't be afraid to seek out the opinion of other surgeons when patients' problems are puzzling or difficult.
- 3 Take care of the whole patient, recognizing that they are not just a "case" of whatever they have. Treat them with compassion as fellow human beings.
- 4 Make sure that you write down what you are thinking and why. Don't let a blank record speak for you. If there is a lawsuit, being able to show that you thought about a problem, even if your decision turned out to be the wrong one, can be a great help in your defense.

The myths that surround malpractice try to tell us that the little things don't matter, but they aren't really little and they really do matter. Consent, protocols, communication, and how we treat our patients outside of the confines of "technical" medicine do matter. They matter a lot, and can be the difference between spending your time in the operating room or the courtroom. ■

Common Misconceptions Among Surgeons Named in Malpractice Cases

by John D. Cassidy, JD, and M. Kate Welte, RN, JD

John D. Cassidy is a senior partner at Ficksman & Conley, located in Boston, Massachusetts. M. Kate Welte is an associate at Ficksman & Conley.

Surgeons named in malpractice lawsuits often arrive for their initial meeting at our office certain that, while they personally did not do anything wrong, they are, indeed, liable for the patient's poor outcome. When we ask why, frequently they will utter the phrase: "captain of the ship," with a forlorn, knowing half-smile. When pressed, they offer that, since they were the principal surgeon at the procedure, whatever went wrong in the operating room was their responsibility.

Imagine their surprise when we advise them that it may not be so.

In this age of super-specialized medicine, multiple specialists rely on a team leader, a "captain." In the operating room (OR), surgeons have long thought of themselves as the "captain of the ship," and rightfully so. The OR can have only one leader, otherwise disorder may ensue. The physician performing the procedure usually fills this role. But, does this position carry with it the burden of being responsible for everything done by every member of the team—scrub nurse, circulating nurse, assistant surgeon(s), anesthesiologist, CRNA, and anyone else who may be in the OR?

Not in Massachusetts.

Barrette v. Hight

In 1967, the Massachusetts Supreme Judicial Court considered the scope of a surgeon's responsibility for other members of the team in the case of *Barrette v. Hight*.¹ The plaintiff in that action suffered nerve damage following a cutdown procedure that was performed by a resident. The patient sued Dr. Hight, the attending, but not the resident, claiming that Dr. Hight was responsible for the resident's alleged error.

The Court disagreed, stating that Dr. Hight was not responsible for the resident's alleged negligence, because Dr. Hight acted reasonably in allowing the resident to perform a procedure that he was qualified to undertake. The import of *Barrette v. Hight* is that the captain need not go down with the ship. This is not to say that the captain *can't* go down with the ship. For example, if an attending surgeon allows a new resident to perform a procedure or a portion of a procedure that she or he is

not qualified to do, then the surgeon bears responsibility for any adverse events that result.

Res Ipsa Loquitur

Another misconception is the notion that, if any surgical complication occurs, the surgeon *must* be liable to the patient. In fact, in Massachusetts it depends on which legal theory is employed: A) "res ipsa loquitur" or B) lack of informed consent. The former is seldom used by plaintiffs in Massachusetts; the latter is common.

Res ipsa loquitur ("the thing speaks for itself") may be considered when a surgical complication occurs and the plaintiff cannot prove how it occurred. The doctrine permits a jury to conclude—even without evidence of the exact cause of the complication—that the plaintiff's injury is more likely the product of the surgeon's negligence than some other cause for which the surgeon is not liable.²

An evidentiary predicate, however, renders the res ipsa loquitur argument largely irrelevant: the jury—based either upon the jurors' common knowledge, or by expert testimony—must be able to make the determination that the injury suffered is of the type that does not occur *absent* negligence. As extremely few surgical situations are uncomplicated enough to allow a jury to make its finding based upon common knowledge, the plaintiff must present expert testimony, just as in any case alleging medical negligence.

This evidentiary requirement prevents the plaintiff from avoiding expert physician testimony, destroying the main attraction of the res ipsa loquitur theory (from a plaintiff's viewpoint). So, while res ipsa loquitur may be alleged in Massachusetts, its usefulness as an evidentiary shortcut has been rendered largely void.

Consent-related Allegations

Alleging a lack of informed consent in order to hold surgeons liable when complications arise also requires the plaintiff to present expert testimony. However, if the plaintiff can show that the surgeon did not obtain the patient's informed consent prior to performing the procedure, the plaintiff can hold a surgeon liable for a complication for which he or she would not be liable if

The import of *Barrette v. Hight* is that the captain need not go down with the ship.

consent had been obtained.³ Lack of informed consent is commonly alleged alongside negligence claims; usually asserting that, if the patient had understood the risk of the complication, the patient would not have agreed to undergo the treatment.

Understanding the principles of informed consent and having adequate consent documentation are very important parts of any surgeon's practice. Surgeons (and certainly other providers) often say that they "gave" the patient informed consent, or—nearly as problematic—that, in spite of little or no documentation, they are certain they *received* the patient's consent. Obtaining genuine informed consent requires the surgeon to present to the patient, in a fashion understandable to a non-clinician, sufficient information for the patient's consent to the procedure to be truly "informed." The problem, of course, is that the question of what exactly constitutes "sufficient information" is not always clear, and is always arbitrary.

The legal standard is that the surgeon is obligated to disclose information that he or she should "reasonably recognize" as material to the patient's decision to have (or not have) the procedure performed. In essence, this asks surgeons to put themselves in their patients' shoes—with all the attendant circumstances surrounding each particular patient—and discuss potential risks in light of those circumstances. While no one can anticipate the subjective importance every patient will place on any given risk, the best policy is to disclose the most common, as well as the most severe, possible outcomes of the proposed treatment. Thoroughness is important, but the standard does not require discussion of "negligible" risks. Of course, undocumented consent discussions cannot be referenced if complications occur.

While no one can anticipate the subjective importance every patient will place on any given risk, the best policy is to disclose the most common, as well as the most severe, possible outcomes of the proposed treatment.

Beware the Good Deed

One last myth to dispel is that curbside consultations "don't count." They do. If a surgeon (or any other physician) is consulted about a patient and knowingly gives advice or an opinion that the inquiring physician is likely to rely upon, he or she is exposed to liability. A typical situa-

tion is that the inquiring physician gets sued by the patient for medical negligence, and during the process of discovery the physician recalls having consulted a surgeon who happened to be nearby, and then relied upon the surgeon's advice. Plaintiffs certainly will consider adding the consultant as a defendant to the lawsuit. No good deed goes unpunished!

To be fair—and so as to not discourage the time-honored tradition of informal consultation—this scenario does not play out frequently. Moreover, at least one Massachusetts trial court has decided that curbside consultations may not form a physician-patient relationship sufficient to warrant liability.⁴ But the naming of assisting or consulting physicians as defendants in a lawsuit does happen. ■

References

- 1 *Barrette v. Hight*, 353 Mass. 268, 230 NE2d 808 (1967) (discussing the liability of one practitioner for the actions of another).
- 2 *Edwards v. Boland*, 41 Mass.App.Ct. 375, 670 NE2d 404 (1996) (discussing the doctrine of *res ipsa loquitur*).
- 3 *Feeley v. Baer*, 669 NE2d 456 (1996) (discussing the doctrine of informed consent).
- 4 *Haney v. Steward*, (1996) WL 1251383 (discussing the liability of physicians acting in a consulting or assisting capacity). This trial court decision, unlike an appellate decision, is not a binding precedent.

Next Steps in Physician-patient Communication¹

by James Herndon, MD, MBA

James Herndon is Professor of Orthopaedic Surgery at Harvard Medical School and President of the American Orthopaedic Association.

For surgeons, effective communication with patients should be an area of concern. In a study on the office practices of orthopaedic surgeons, Levinson and Chaumeton determined that the mean duration of an office visit was 13 minutes and that the surgeons talked more than the patients did.² They also observed that, even though a substantial amount of patient education occurred during these visits, orthopaedic surgeons infrequently expressed empathy toward the patient and usually asked only closed-ended questions, allowing for only brief social conversation. According to Vaughn Keller, Associate Director of the Bayer Institute for Health Care Communication, the problem often starts within seconds of a consultation: the patient starts talking about a problem (usually not the important issue, which the patient is saving for toward the end of the visit) and the doctor interrupts within 18-24 seconds and begins firing a series of questions at the patient. The big issue, therefore, never gets discussed.³

The role of effective physician-patient communication in achieving the best medical outcomes and promoting patient satisfaction is well established in the literature and is confirmed by our personal experience as physicians. In a public opinion survey on what makes a good doctor, conducted by the American Association of Medical Colleges, the participants indicated that important attributes of the physician were: a caring attitude and communication skills (85 percent of participants), the ability to explain complicated medical procedures (77 percent), good listening skills (76 percent), and an open mind about alternative therapies (29 percent).⁴

The importance of communication has received a great deal of attention among primary-care providers but little attention until recently among specialists, especially surgeons. Research in the primary care setting has estab-



lished that effective communication enhances patient recall of information, compliance with instructions, satisfaction, and psychological well-being—and it improves outcomes.² New knowledge about the impact of ethnicity, age, and gender on health-care utilization has further confirmed these observations.² According to Levinson and Chaumeton, a trusting relationship between a physician and a patient is the bedrock of medical care.² The purpose of communication is not to convince the patient to do what the physician desires, but to understand the patient's concerns and to make decisions acceptable to both the patient and the physician.²

As we move to a consumer-driven health-care system in which patients expect to understand their medical prob-

lems, their treatment options, and the relevant outcomes data—as well as to participate in decisions about their care—we must be ready to answer their questions. We must be prepared to provide both information and judgment about new technologies, alternative treatments, interpretation of medical data, new pharmaceutical products, and the impact of genomics on their conditions and treatment options. We must communicate effectively. Managed care and information technology have altered our practice of medicine and the management of our offices. We must constantly reassess the impact of these changes on our ability to communicate with and to establish relationships with our patients, and to carry out the duties of our profession. Adherence to the core elements of professionalism—that is, altruism, accountability, excellence, duty, honor, integrity, and respect for others—is not possible in the absence of effective communication between physicians and patients and between physicians and their colleagues.

Earlier Call to Action

In 1987, Goldner noted that communication was one aspect of the art of medicine that required improvement.⁵ He described marketing studies that showed that patients were impressed by the tone of voice, body movement, and actions of the physician as well as by factual information. He suggested that the physician should “look in the mirror occasionally” and carefully review his or her habits and mannerisms. He went on to state that our time is “our most valuable asset,” recommending that we learn to use our time efficiently without sacrificing our ability to listen carefully, think logically, and respond with compassion and reasonable actions.

In order to cope adequately with patients and their problems, he recommended that we “don’t talk down to the patient; don’t use complex terminology for explanation; don’t coax the patient to have a procedure; don’t exaggerate the severity of the musculoskeletal problem; don’t belittle the patient who is already frustrated, anxious, or indecisive; and don’t become exasperated with questions...don’t ignore telephone calls; don’t perform cursory examinations; and don’t let the patient’s personality affect you adversely. Dr. Goldner challenged us to think about [our] behavior and he asked: “Where are the courses, the update information, the dogma, and the emphasis concerning attitude and behavior and interpersonal relationships?”

The Internet and the Era of the Patient/Consumer

The Internet...is effectively converting the health-care system from one that is physician-driven to one that is consumer-driven. As of 2000, there were over 17,000 health-care web sites, and 25 billion transactions occurred annually on these sites.⁶ While the information available on the Internet offers many new opportunities for patients to participate more effectively in choices about their providers and treatment options, it also creates many new challenges for physicians with respect to the way that they communicate with their patients. No longer are patients relying solely on the information provided by their physicians. Physicians must anticipate patients’ concerns and be prepared to explain and reconcile information presented by the patient.

In a public opinion survey on what makes a good doctor the participants indicated that important attributes of the physician were: a caring attitude and communication skills, the ability to explain complicated medical procedures, good listening skills, and an open mind about alternative therapies.

With new sources of information, consumers are becoming increasingly educated and able to “go around the system” to find what they want. Interestingly, patients/consumers are most likely to seek information about specific diseases and treatment options—information that has been traditionally provided by physicians. What seems clear is that consumers are increasingly prepared to demand what they want,

where they want it, and when they want it. Power noted that patients or consumers are more demanding, with 78 percent wanting a say in their treatment decisions and 72 percent feeling uncomfortable when a physician leaves them out of medical care decisions that affect them. Both of these emerging patient requirements can be addressed through effective physician-patient communication.

Power went on to state that the implication of these developments is that the future of the health care industry is unknown; the information revolution will certainly result in substantial change. Consumer-driven health-care is inevitable; those who resist change demanded by consumers will not survive.⁶ Power made the following recommendations:

- 1 increase personal attention to each patient,
- 2 better integrate the voice of the patient,
- 3 build quality into the process—a true consumer orientation is not reactive,
- 4 survey patients, and
- 5 reduce waiting time in the office for appointments and between office and surgery.

In a recent Institute of Medicine report on the future of health-care systems, it was noted that the current system is built around the physician’s time, but the future system will be built around the patient’s time—not only when and where but how much patients demand from physicians—i.e.—24/7/365.⁷ Physicians will need to organize their clinical practices in such a way that sufficient time is provided for effective communication, and, where possible, they will need to make patient education materials available to provide additional information and to reinforce their instructions.

Continued on next page

Continued from previous page

A second impact of information technology and the Internet on health care is the availability of new opportunities for creating and providing efficiencies that promote access and “customer” satisfaction.⁶ Physicians who are able to give patients easy access to information and retain personalization will get and retain their business. Currently, few physicians use the Internet to communicate with their patients. However, over time, e-mail correspondence may supplant traditional telephone messages and provide a means of direct contact with patients. The Internet, however, poses a threat to the physician-patient relationship because it tears down traditional market boundaries. The physician is no longer the sole repository of knowledge as patients are able to access multiple sources of information.

Strengthening the Physician-patient Relationship

Effective communication cannot exist in the absence of a solid, trusting physician-patient relationship; the two are inextricably linked. Fostering the kind of physician-patient relationship that will facilitate effective communication can be helped by paying attention to the “Six Cs” outlined by Emanuel and Dubler, which include:

- Choice—physicians and treatment options.
- Competence—expected of doctors by patients.
- Communication—physicians must listen, understand the patient’s pain or problem, and communicate.
- Compassion—patients want technical proficiency but also empathy.
- Continuity—the patient-physician relationship should endure over time.
- (No) Conflict of Interest—the physician’s primary concern must be for his or her patient—the patient’s well-being must take precedence over the physician’s own personal interest.⁸

“Trust is the culmination of realizing these “six C’s, [and] not an independent element.”⁸ Bulger incorporated these characteristics in his definition of the physician in the new world of medicine.⁹ Bulger described the modern, mature, science-based clinician-healer as being both scientifically and ethically competent and one who is calm, understands suffering, comes to terms with death and dying, has knowledge of the placebo effect and its role in scientific health-care practice, is able to communicate

and especially to listen, and, finally, understands his or her own expanding and changing professional role.⁹

Guidance for strengthening physician-patient communication also comes from reframing the role of the physician in caring for patients. Until the late 1960s, the traditional role of the physician was to secure the medical welfare of his or her patient. Minogue stated that the new, modern notion is that “the physician’s stewardship extends not only to the medical welfare but also to the wishes of the patient...the individual has a legitimate claim to define what is best for himself or herself even if the doctor disagrees.”¹⁰ A recent study by Braddock et al., in which 1,057 patient visits with 59 primary-care doctors and 65 general orthopaedic surgeons were recorded on audiotape, showed that only nine percent of the medical decisions met the criteria for complete informed consent.¹¹ These criteria included the patient’s awareness of his or her role in the decision, the nature of the treatment and alternative treatments available, the patient’s understanding of the decision, and the patient’s preference. Physicians need to develop skills that enhance the patient’s knowledge in these areas. As part of a similar study, Levinson and Chaumeton reported that good communication is not necessarily more time-consuming.²

Role of Graduate Medical Education and the Profession

It is important that attention to the physician-patient relationship, communication, and professionalism be an essential part of medical education, including graduate medical education. The Accreditation Council of Graduate Medical Education has identified several major developments that will have an impact on graduate medical education.¹² These include emergence of a global environment for medicine, disclosure of the human genome, continued growth in scientific knowledge, the effect of computers on all aspects of health care and education, growth in information available to patients about their diagnosis and disease, economic strategies that dominate academic settings, and the demands of a multicultural society and an aging population. Excellent communication skills are essential in this new health-care environment. Specifically with regard to the physician-patient relationship, the Accreditation Council of Graduate Medical Education recommended the following broad areas of competency necessary for resident accreditation: patient care, medical knowledge, interpersonal and communication skills, professionalism, practice-based learning and improvement, and systems-based practice.¹²

ABOUT FORUM

FORUM provides in-depth analyses of specific medical malpractice cases and issues along with practical loss prevention advice and case abstracts.

The Massachusetts Board of Registration in Medicine has approved **FORUM** as qualifying for the equivalent of AMA Category 1 continuing medical education credit suitable for the Massachusetts requirement in risk management education.

COPYRIGHT AND PERMISSIONS

All rights reserved; use by permission only.

Images on page 4 & 14 ©2004 GettyImages.

Letters to the Editor and requests for **Permission to Reprint** should be addressed to the Editor, at:

Risk Management Foundation

101 Main Street
Cambridge, MA 02142

E-mail: Forum@RMF.Harvard.edu

Fax: 617.495.9711

DISTRIBUTION

FORUM is published quarterly by Risk Management Foundation of the Harvard Medical Institutions, Inc., and is available at www.rmfm.harvard.edu.

FORUM is distributed at no charge to institutions, staff, and physicians insured by the Controlled Risk Insurance Company (CRICO). Subscription is provided on request.

Non-CRICO insureds may subscribe on line at www.rmfminteractive.com.

STAFF

Editor
Jock Hoffman

Issue Editor
Kathleen Dwyer

Editorial Staff
Tom A. Augello
Annette Bender
Jessica Bradley
Frank Federico
Heidi Groff
Robert Hanscom
Luke Sato, MD
Mary Schaefer
Dan Schwartz

Production Designer
Alison Anderson

Of the six requirements, two—communication and professionalism—specifically deal with interpersonal skills. Interestingly, such requirements were found indirectly in Flexner's original report: "Specific preparation... requires insight and sympathy...varied cultural experience...ethical responsibility."¹³

In summary, dynamic forces are changing the physician-patient relationship and a new emphasis on physician-patient communication is necessary to ensure that medicine remains a respected profession in our developing consumer-oriented society. We can all improve our communication skills. We suggest that surgeons survey their patients on a regular basis and evaluate their office staff as well as themselves. Essential components of professionalism are continuing education, continuing self-evaluation, and continuing improvement. Patients interact with the health-care system one physician at a time. Our communication skill in terms of collecting and sharing information, decision-making, and empathy is the single greatest factor influencing each encounter. As a profession, we need to ensure that this experience is as effective and positive as possible. ■

References

1. Abstracted with permission from the author and from the copyright holder, *Journal of Bone & Joint Surgery (American Volume)*. 2002;84(2):309.
2. Levinson W and Chaumeton N. Communication between surgeons and patients in routine office visits. *Surgery*. 1999;125:127-34.
3. Boodman SG. Breaking up with your physician. *Los Angeles Times*. May 8, 2000:1.
4. American Association of Medical Colleges. Public opinion research: issues facing medical schools and teaching hospitals. June 1999. www.aamc.org/about/progemph/totc/factshts/po.htm
5. Goldner JL. Coping with a changing doctor-patient relationship in 1987. *Journal of Bone & Joint Surgery*. 1987;69:1291-96.
6. Power JD. Keynote address. The rating of healthcare. Read at the May, 7, 2000 Academic Practice Assembly, Medical Group Management Association; Phoenix, AZ.
7. Institute of Medicine. Crossing the quality chasm: a new health system for the 21st century. Washington, DC: National Academy Press, 2001.
8. Emanuel EJ and Dubler NN Preserving the physician-patient relationship in the era of managed care. *Journal of the American Medical Association*. 1995;273:323-29.
9. Bulger RJ The quest for the therapeutic organization. *Journal of the American Medical Association*. 2000;283 2431-33.
10. Minogue B The two fundamental duties of the physician. *Academic Medicine*. 2000;75:431-42.
11. Braddock CH, et al. Informed decision making in outpatient practice: time to get back to basics. *Journal of the American Medical Association*. 1999;282:2313-20.
12. Philibert I. Good learning for good healthcare. In: Proceedings of the Accreditation Council of Graduate Medical Education Symposium on the Forces That Will Shape GME in the 21st Century; Chicago, IL, September 24-24, 1999.
13. Philibert I. Abraham Flexner comments on the six general competencies—a medical education fantasy. *ACGME Bulletin*. April 12-13, 2000.

Practical Steps to a Systems-based Surgical Practice

By David Roberson, MD

Dr. Roberson is a pediatric otolaryngologist practicing at Children's Hospital in Boston.

Numerous writers and commentators have stressed that improvement in medical care needs to come from better or safer “systems.” As of July 2003, “systems-based practice” is one of the six ACGME core competencies that all residency training programs must begin to incorporate. But, frankly, many physicians may not be very clear about what these terms really mean to them.

How does one adopt a “systems approach” to morning rounds? to a day in the operating room? or to ordering lab tests? Is there such a thing as a “systems approach” to these areas? Is this just warmed-over management jargon that will be replaced by a new catch-phrase in a few years?

In my practice, adopting a “systems approach” has made a tremendous difference. While it is hard to demonstrate that my patients are safer—since bad outcomes are rare in my specialty (pediatric otolaryngology), I can state that my outpatient days run more smoothly; my operating room time is more pleasant and efficient; and my inpatients get more coordinated, efficient care.

For me, “systems-based practice” means a defined set of principles that make my life and my patients' care better. These principles are not magic. In fact, now that I see the world through a “systems” lens, I often see others using them, in many cases without realizing that they are systems-based. None of the principles I try to apply is new or unusual. What is new about a systems approach is that it provides a theoretical framework for understanding principles that are effective in a complex medical environment, and allows one to select techniques to improve one's practice with less trial and error. Following are some suggestions about small, low-risk, steps that can be tested to improve system function in your practice.

First, and Most Importantly

The way medicine must see the world has changed profoundly. Our system of medical training was designed when medical care was delivered individually. Physicians made house calls, had offices in their homes, and managed patients from cradle to grave without ever consulting another physician. If a physician was well trained in the practice of medicine, it did not matter much whether he or she could organize an office efficiently.

Today, patients no longer receive medical care from one physician acting alone. More and more, they receive care

from large conglomerates of people, organizations, and machines. A physician who does not attend to office organization puts his or her patients at risk. If dictations are incoherent, phone messages are not delivered, consultations reports not filed, or pathology reports not tracked, patients will suffer avoidable harm.

Unfortunately, medicine has not yet learned to attend appropriately to these systems issues. We teach and revere individual medical skill: diagnostic acumen, judgment in treatment, and surgical skill. We neither teach nor revere organizational and management skills. Physicians often ridicule managers, administrators, and “bean counters.” I have often heard physicians say “I'm a doctor, not a manager” with obvious pride. This may have been a reasonable distinction to draw in 1950. In the complexity of medical practice in 2004, however, a physician who is a poor organizer cannot deliver the best quality care. Both medical expertise and organizational skill are essential to exemplary medical care.

The need for organizational and leadership skills is an inevitable consequence of the increasing complexity of medical knowledge and treatment. Complex patients are cared for by dozens of clinicians. The managing physician cannot master all the expertise that consultants offer. If the managing physician is a good clinician and a master of coordinating communication, integrating information, and team leadership, then such patients will likely get outstanding care. If the managing physician is a poor communicator and leader, patient care will suffer regardless of how good the other care providers are.

Think about the most frustrating recurring problem in your practice that takes time or energy away from patient care. Almost certainly you are thinking of chronic negative interactions with individuals with poor organizational, communication, or interpersonal skills. If this situation were resolved, would you not have more time to devote to your patients? Does resolving involve more than improving your own skill?

If you accept the idea that the care your patients receive is not solely determined by your own skill, but by the system in which you function, you are a believer in “systems-based practice.” Now the challenge is, what are practical ways for you to improve that system? Two (out of many) to consider are communication and standardization.

Communication

A common misconception among individual physicians is that the system is too large and unwieldy for one physician to change. The statement “the hospital isn’t willing to do what’s necessary to . . .” is repeated, like a mantra, as justification for individual physicians not making an effort to improve function. But the premise is a misconception. While some types of improvement can only come with high-level support, great strides in system function can often be made at the individual level.

The first step is simply to open your eyes to the importance of interactions. Notice how a negative relationship between secretaries leads to poor patient scheduling, and to a patient getting short-changed. Notice how a turf battle with another service affects patient management. Notice how a consultant’s recommendation is not followed because it is communicated to a cross-cover resident who fails to include it in her morning report. Notice how a discharge is delayed because visiting nurse services were unavailable. Notice how residents (particularly in July) have hours of time taken away from important patient care simply because they don’t know how to order a scan in their new workplace.

Consider how much energy is wasted when 1) you change the care plan on a patient during the day, 2) one resident on the service doesn’t get the message, and 3) proceeds with now obsolete plans. Phone an attending physician consulting on one of your patients and discuss their recommendations directly with them. You may be surprised at how they differ from the third-hand report you heard through house staff and nursing. Often you may find that the patient’s care can now be simplified and discharge expedited.

If observation exposes dangerous communication gaps, resolve to reduce or eliminate them. After leaving your recommendations in the chart, call the other service and tell them. Better, catch the other service on rounds and discuss your thoughts so that everyone is on the same page. Tell the nurses caring for the patient your thoughts. If you change the care plan on a patient, immediately page your house staff and tell them. Before leaving the hospital every night, e-mail all your house staff a current plan for each patient. These steps require a modest amount of input energy which, I have found, is saved many times over because I now rarely have to “sweep up” the sequellae of miscommunication.

Standardization

A principle of complex systems is that standardization improves function. If a group of four endocrinologists all have a completely different work up for a common problem, the secretarial and nursing staff will waste time and—sooner or later—make mistakes or forget to check some of the labs. Couldn’t these four physicians agree on *some* standard workups? One reason standardization is not pursued is that the physicians don’t recognize the risks of non-standardization. But, if you make the effort to standardize any part of your practice, the rewards are often immense.

When I joined my current practice, we cancelled about one patient weekly because of abnormal labs noted on the morning of surgery. Since we standardize our preop labs and check them well in advance, we now cancel perhaps one patient a year on the day of surgery. This requires energy, but it saves immense amounts of time once spent dealing with patients whose surgery was cancelled. Not every problem is susceptible to standardization, but even tertiary care has many day-to-day aspects that are susceptible to, and improved by, standardization.

Start Small

Pick one small problem in your practice susceptible to standardization. Put a protocol in place, and get your partners to agree to try it, if only for a few months. If it is effective, consider subsequent problems. Standardization, if used appropriately, is “win-win”—you will save time and improve care.

Medicine in the United States has focused entirely on training high quality physicians, and has rarely attended to the importance of interactions of individuals within complex systems. Today, this is no longer acceptable. Physicians who understand how complex systems work can deliver substantially better care than those who do not. Within our lifetime, it will be untenable to practice medicine without systems skills. Fortunately for those of us already in practice, they are straightforward to learn and immensely rewarding to apply. ■

References

1. Nolan, T. 1999. Understanding Medical Systems. *Annals of Internal Medicine*. 128:293–98.
2. Reinertsen, JL. 1998. Physicians as Leaders in the Improvement of Health Care Systems. *Annals of Internal Medicine*. 128:833–38.
3. Clemmer TP, et al. 1998. Cooperation: The Foundation of Improvement. *Annals of Internal Medicine*. 128:1004–09.