

Patient Safety On Hold

The Case for Fail-Safe Medical Communication Systems BY PETER WHITE

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There is a troubling trend in health care today. The unfortunate paradox of the Information Age is that one of the most technologically driven fields, medical care in general and specifically radiology, fails to live up to its potential because of breakdowns

and failures to communicate urgent or unexpected patient findings accurately from one physician to another. The devastating consequences of these communication breakdowns and errors in radiological communications have been well documented in the medical literature. Additionally, weaknesses in the communications chain lead to elevated anxiety and frustration for both physicians and patients, and lost productivity in an increasingly cost-conscious health care environment. Because

physician fail to communicate in a timely fashion. Physicians and hospitals are justifiably proud of their professional skills, expertise, and capabilities, but a simple breakdown in communications can render that exemplary expertise and capabilities meaningless to a patient whose life hangs in the balance.

As medicine has become increasingly specialized, physicians must be able to communicate in confidence and *with* confidence to other physicians. Despite the proliferation of advanced communications devices – digital landline phones, video phones, mobile phones, pagers, PDAs, voicemail, answering systems, fax, e-mail – technology, until now, has failed to ensure that a physician specialist can communicate vital patient information in a timely manner to a referring physician. It seems at times that we have more devices and less communication. This is a widely acknowledged and documented problem in health care delivery.

The problem is a significant threat to patient safety and has drawn the attention of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). The main accreditation body for hospitals and other health care organizations is placing new emphasis on communication problems that threaten patient safety.

Writing in the April 2002 issue of the *American Journal of Roentgenology* (AJR), Leonard Berlin, M.D. summarized several published studies, noting:

- An analysis of court transcripts disclosed that communications problems were present in more than 70 percent of depositions obtained on plaintiffs in malpractice cases.
- Another study showed that breakdown in communication was found to be a causative factor in as many as 80 percent of malpractice lawsuits.
- A survey on the causes of malpractice litigation

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of recent advances in communications technology, a new era of fail-safe and JCAHO-compliant medical communications is at hand, and physicians and hospitals must embrace it or face serious consequences in the courts. The advanced technology supports medical care and patient safety rather than undermines them.

Physicians have at their disposal incredibly powerful technology to diagnose and treat injuries and diseases, but patients often fail to receive the benefits of this technology for one simple reason: the specialist, such as the radiologist, and referring

tion found that the number of medical malpractice claims alleging communication failure had grown to become the fourth most frequent primary allegation against radiologists.

- The same survey also showed that in nearly 60 percent of malpractice lawsuits involving radiologists, the referring physician had not been directly contacted regarding urgent or significant unexpected findings, even though in 75 percent of these cases, the medical record showed that a radiology report was issued in a timely manner.
- Yet another recent analysis of radiologic malpractice lawsuits filed in the United States from January 1985 through December 2000 showed that the medical legal issue of poor communication between providers resulted in the second highest average and the third highest total amount of indemnification paid to plaintiffs.
- In a 2001 report to the Florida Radiological Society, an independent consulting firm said, “One of the most astounding facts we have uncovered is the ratio of diagnostic errors versus the subsequent communication errors of a diagnosis. Remarkably, 75% of claims against radiologists stem from various sorts of errors in communicating, while only 25% are errors in diagnosis. That means that almost three quarters of radiology claims could be prevented if serious focus is placed on developing effective communication systems and highly accurate administrative procedures.”

Numbers like these show there are serious communications problems between specialists and referring physicians, but they only hint at the economic and human costs. Failure to communicate vital medical information affects the patient, the patient’s family, the physician, the physician’s family, their practice, and even the medical institution’s finances and reputation. The statistics also only suggest the anxiety, frustration, and lost productivity caused by communications problems.

Conversely, efficient, accurate, and verifiable communications between and among medical professionals can have dramatic benefits for patients, their families, the physicians and their institutions. Writing in the *Journal of the American Medical Informatics Association*, Enrico Coiera, MB, BS, PhD, Professor, University of New South Wales, Australia, notes that conversations between and among medical professionals is far more important in medical care delivery than e-mails and computer-generated forms.

Dr. Coiera points out that, “Communication failures are a large contributor to adverse clinical events and outcomes. In a retrospective review of 14,000 in-hospital deaths, communication errors were found to be the lead cause, twice as frequent as errors due to inadequate clinical skill.”

The new, broader communications standard from JCAHO, which took effect January 1, 2004, casts a spotlight on this

weak link in modern medicine. The standard says:

Improve the effectiveness of communication among caregivers.

a) Implement a process for taking verbal or telephone orders or critical test results that require a verification “read-back” of the complete order or test result by the person receiving the order or test result. [Scored at Standard IM.6.50, EP #4]

According to JCAHO, beginning in January 2004, the existing “read-back” recommendation also applies to all “critical test results” reported verbally or by telephone, not just medication orders. JCAHO says the term “critical test results” refers to all diagnostic tests including imaging studies, electrocardiograms, laboratory tests and studies.

In plain language, getting the diagnosis right is only half the battle, according to JCAHO. Health care providers have not done their job unless the communications loop is closed and error-free.

Radiological communications are expected to follow well-established, but still evolving rules and standards. These rules and standards are spelled out in statutes, twenty years of case law, and professional guidelines, namely those of the American College of Radiology. Section V. Communication, of the *ACR Practice Guidelines* states in part:

“A. Direct communication is accomplished in person or by telephone to the referring physician or an appropriate representative. Documentation of direct communication is recommended. In those situations in which the interpreting physician feels that immediate patient treatment is indicated (e.g. tension pneumothorax), the interpreting physician should communicate directly with the referring physician, other health care provider, or an appropriate representative...”

B. Under some circumstances, practice constraints may dictate the necessity of a preliminary report before the final report is prepared. A significant change between the preliminary and final interpretation should be reported directly to the referring physician.

C. In those situations in which the interpreting physician feels that the findings do not warrant immediate treatment but constitute significant unexpected findings, the interpreting physician or his/her designee should communicate the findings to the referring physician, other health care provider, or an appropriate individual in a manner that reasonably insures receipt of the findings.”

Courts, however, repeatedly have held that the ACR guidelines are not standards of care, but rather standards of “minimum levels” of care. In a landmark 1979 case, *Phillips v. Good Samaritan*, in Montgomery County, Ohio, the state courts held that “communication of the result, so that it

may be beneficially utilized, may be altogether as important as the diagnosis itself." This ruling has been cited by other courts more than sixty times since it was first issued.

Individual and System Issues and Responsibilities

Both individual physicians and institutions share responsibility for radiological communications. Individual physicians are responsible for issuing an authenticated, substantive report with a reasonable interpretation. The institution's systems must enable the physician to communicate their patient findings in a reasonable and expeditious manner, especially when the findings are urgent and/or unexpected.

Above all, the system must ensure that the communications loop is closed. This means that it is not enough to report an urgent or unexpected finding to an anonymous or open-ended system. There must be documentation of the communication and verification, i.e. date and time, that the communication was received by the responsible party.

The Elements of Negligence

The legal concept of negligence consists of four elements: duty, breach, causation, and damages. In the case of radiology, a radiologist has the duty to produce satisfactory images, make a reasonable interpretation, and effectively communicate those findings to the referring physician. If the radiologist fails to fulfill this duty in any respect, they could be held negligent and liable for damages.

Without question, clear, error-free, timely communication is fundamentally important to effective medical care. The challenge is to harness the power of 21st century communications technology to support, rather than undermine the optimal delivery of medical care.

Technology Advances

Fortunately, communications technology has continued to advance. January 2003, saw the introduction of the first intelligent, verifiable, fail-safe communications technology specifically adapted to the needs and preferences of physicians and to the demands of the health care delivery environment. This communications system, hosted by a major carrier, addresses the critical and perhaps unique needs of medical communications:

- **One Call Does It All** – The physician makes one call – the communications system does the rest.
- **Voice-Activated Directory** – No need to remember or to key in numbers; the physician simply says the name of the referring doctor.
- **Intelligent Message Tracking** – The specialist knows instantly when a message is received and can use the Web-

based monitoring system to track any and every message.

- **Automated Follow-up** – Fail-safe system repeatedly sends messages until they are received.
- **Complete Documentation and Audit Trail** – Ten-year-plus searchable archive of all messages.
- **HIPAA-Compliant Communications** – HIPAA privacy and security rules enforced throughout system.

Once a hospital and its radiologists have subscribed to the service and the technical team has created the directories with all the necessary contact information and preferences, the advanced communications system works like this:

- Dr. Johnson, the radiologist, wants to communicate to Dr. Watson, the referring physician, that there is an abnormal finding on his patient's mammogram. Instead of making repeated attempts to reach Dr. Watson or leaving simple voicemail messages, Dr. Johnson calls his assigned 800- number and says, "Create message for Dr. Watson."
- The system invisibly creates a digital envelope for the message, that includes sender, recipient(s), subject(s), team member, notification rules, etc.
- After Dr. Johnson has created his detailed voice message about his findings, he presses the pound key (#) to send the message or notification of the message to Dr. Johnson via phone, pager, fax, and e-mail.
- As Dr. Watson receives each of these communications, the receipt is documented and logged in the system, and Dr. Johnson is notified upon successful receipt of the message. Dr. Watson can reply immediately simply by saying "Reply" and stating his response. If Dr. Johnson chooses to reply to an e-mail, the text can be converted to speech via text-to-speech digital conversion. All messages are tracked on a threaded basis, maintaining the integrity of the communications.
- After the communication about this particular patient has ended, the voice record is archived by the system for ten years or even longer if desired. The record later can be retrieved by a speech-based search engine.

The advanced medical communications system offers important benefits to the physicians and ultimately to their patients:

- **Fail-safe** – Ensures that the specialist's report reaches the referring physician in time to make a difference for the patient.
- **Efficient** – The specialist makes one call to submit the preliminary report and simultaneously notify the referring physician via telephone, pager, e-mail, and fax; no more phone tag.
- **Accurate** – Nothing gets lost or mangled "in translation." The specialist's expertise is communicated in the specialist's own words.

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- Reliable – As long as the doctor can get to a working phone, the system is accessible.
- User-Friendly – As simple to use as an ordinary telephone.
- Never Forgets – Searchable archive can store radioical reports for 10 years or longer.

Although it sounds futuristic, this technology already has been deployed and is in use at a growing number of hospitals, including Vanderbilt University Medical Center, the University of Pennsylvania Hospital, Centinela Medical Center in Los Angeles, Presbyterian Hospital of Dallas, and others.

Implications for Health Care Delivery

The implications of this advanced, fail-safe medical communications technology are profound. It means that communications errors and failures – the Achilles' heel of medical care – can become something of the past. Patients need not be put at risk. Physicians need not suffer the anxiety and dread of missed communications. And physicians and their staff need not waste precious time trying to bridge communications gaps. Health care delivery can become more efficient.

At the same time, failure to use this proven technology, which requires no outlay for new hardware or software, will likely expose practitioners and hospitals to even harsher treatment by jurors in medical malpractice cases. Aware that affordable technology is available that eliminates communication errors, delays, and failures, jurors may feel much less tolerant of such occurrences when lives hang in the balance.

From a business perspective, physician specialists who depend on referrals for much of their income, will have to consider the client service implications of the advanced communications technology. Referring physicians will come to expect timely reports from the specialists, with no excuses or communications failures. Radiologists and other specialists will realize that they cannot afford to ignore this advance in communications technology. **]]]**

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