



Radiologists risks in communicating unexpected findings



For all its value and pivotal role in furthering health, medicine and innovation, information technology (IT) has created a very significant caveat: risk in communicating unexpected findings. A report published in [JACR](#) explains how failure to communicate is one of the greatest problems facing radiologists today.

Courts have consistently found that timely communication may be as important as the diagnosis itself. One of the major driving forces that directly affects failure to communicate, according to the report, is **IT**. The report says, not only does IT provide patients with up-to-date information about medical conditions and diagnoses, it also allows the public to instantly communicate with one another, something they expect physicians to do as well.

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The paradox is that we are so advanced in imaging technology, but not in communicating imaging findings. The report examines pressing issues in communicating unexpected findings and possible solutions. **Information technology can be a facilitator but not the substitute for direct communication with ordering physicians.**

Communicating unexpected findings directly affects the ability of radiologists to deliver **quality patient care**. Failure to communicate is one of the greatest problems facing radiologists today. It has been reported to be a causal factor in the majority of **lawsuits against radiologists**, although not the primary factor.

When radiologists do not directly communicate positive findings, the indemnity payment is twice as high as when effective communication occurs, according to the report. [The Physician Insurers Association of America](#) looked at 184 lung cancer claims closed since 1995 with adverse outcomes. More than half were the result of communication errors that resulted in death or additional injury to the patients. Clearly, radiologists need to have better communication.

The Sentinel Case

An 8-year-old child fell on Christmas Eve and was taken to the emergency room with a painful and swollen left elbow. A fracture was missed by the emergency room physician. Two days later, the radiologist, who was aware of the “miss” by the emergency room physician, correctly diagnosed a radial head fracture. However, the child was not seen by a treating physician for 2 more weeks. The hospital, the emergency room physician, and the radiologist were sued. The radiologist argued that his liability ended when he correctly interpreted the report.

However, the Ohio appellate court in *Phillips v Good Samaritan Hospital* (1979) held that “the communication of a diagnosis, if it is to be beneficial, is sometimes as important as the diagnosis itself.” In 1987, a New Jersey appellate court, relying on the *Phillips* case from Ohio, found against a radiologist, holding that “communication of an unusual finding, so that it may be beneficially utilised, is as important as the finding itself.”

Recent Changes to the ACR Practice Guideline on Communication

The ACR adopted its “[Guideline for Communication: Diagnostic Radiology](#)” in 1991, addressing the need to adequately communicate an urgent or significant unexpected finding to the ordering physician in a timely manner. The term standard was changed to guideline effective October 1, 2005. Also, the term significant unexpected finding was eliminated, but unexpected finding was kept and non-routine communications was added.

The ACR practice guideline is based on the concept that “effective communication is a critical component of diagnostic imaging.” The value of the [ACR](#) practice guideline is to make radiologists aware of the already existing reporting requirements for unexpected findings and provide them with the tools and information necessary to reduce their risk and liability for handling these communications. However, radiologists may face liability for inadequate communication apart from the ACR practice guideline, which is based on reported case law. Four cases from Ohio, New Jersey, Arkansas, and Washington predate the 1991 ACR practice guideline for communication, which was then called the ACR standard for communication.

Non-routine Communications

The final report has been considered to be the definitive means of routine communications, but it is also the documentation of the results of an imaging examination or procedure and the medical record of the radiologist. **The final report is necessary, but not sufficient, for communicating urgent or significant findings.** Non-routine communications may be necessary when there are “findings that suggest a need for immediate or urgent intervention” or “where there are findings that are discrepant with a preceding interpretation of the same examination and where failure to act may adversely affect patient care.” It may also be necessary for “findings that the diagnostic imager reasonably believes may be seriously adverse to the patient’s health and are unexpected by the treating or referring physician.”

Unexpected Findings

These are findings that may seriously affect a patient's health but do not require immediate or urgent intervention. The ACR practice guideline recommends communicating such findings “in a manner that reasonably insures receipt of the findings.” However, **an unexpected finding becomes significant when there is a failure to communicate that results in additional patient injury or death.**

A 43-year-old man with the sudden onset of severe low back pain radiating to both legs was referred to an imaging centre by his orthopaedic surgeon for an MRI scan of the lumbar spine. The MRI scan showed a large central disc herniation at the L4-L5 level with a larger extruded disc herniation at L5-S1. The radiologist also noted a large non-cystic lesion within the left kidney and recommended an ultrasound or CT scan. The surgeon did not speak with the radiologist but had reviewed the actual MRI scan that the patient brought on a subsequent office visit. The surgeon operated on the discs, and the patient's pain ceased.

Unfortunately, 17 months later, the patient presented to the emergency room with **hematuria** and severe left flank pain radiating to the groin. A CT scan showed a large hemorrhagic left renal mass with metastasis to the lung. The surgeon claimed that he never saw the report, even though it was later found to be part of his office chart. The radiologist correctly made the diagnosis of a non-cystic renal mass but did not document or recall communicating the results to the ordering physician, other than dictating a report. The orthopaedic surgeon, the radiologist, and the imaging centre all settled out of court. Documentation of the personal communication with the referring physician in the final report might have protected the radiologist when failure to communicate was alleged.

The Preliminary Report

Under some circumstances, practice constraints may dictate the necessity of a preliminary report by radiology before the final report is prepared. It may contain limited or incomplete information. Any change between the preliminary and final interpretation should be reported directly to the referring physician and documented.

Many hospitals have preliminary reports written by emergency room physicians. There needs to be a mechanism in place for radiologists to be aware of the results of preliminary reports from the emergency room. As with most sentinel events, the main root cause contributing to delays in treatment is a breakdown in communication. Failure to address a significant discrepancy can have catastrophic results for both patients and radiologists.

A 58-year-old man had a chest x-ray read as normal by the emergency room physician. The next day, it was correctly read by a radiologist as showing a suspicious lesion in the lung. However, the radiologist failed to check for a discrepancy with the preliminary report and was unaware of the normal read by the emergency room physician. The cancer went undiagnosed for 13 months, and the patient died from his cancer 2 years later. A \$2 million settlement against the radiologist was reached.

Liability Traps for Radiologists

Self-Referred and Third Party–Referred Patients

Radiologists should recognise the potential obligations of assuming the care and treatment of patients who present themselves for imaging studies on a self-referred or third party–referred basis. If there is a serious finding, the obligation of the radiologist may include communicating the results directly to a self-referred patient or third party–referred patient. It may also include the necessity of appropriate follow-up. The radiologist may become the treating or primary physician in many cases. The radiologist may indeed have a duty of continuing care. A Missouri appellate court held that “a radiologist has a duty of continuing care, including follow-up, to assure that the treating physician acts on unexpected or adverse findings.”

A woman was sent for a preemployment chest x-ray to check for tuberculosis by the day care centre that employed her. The chest x-ray was read by the radiologist as showing a nodule, and the report was sent to the employer. However, the woman was never informed of the results by the employer or the radiologist. She was diagnosed with lung cancer 10 months later and alleged that the radiologist provided negligent and improper medical care by failing to timely and adequately diagnose and communicate the abnormality. The Arizona Supreme Court held that “the lack of a formal physician/patient relationship does not remove medical professionals from their responsibility to tell people what an examination reveals.”

Intervening Events and Superseding Causes

To relieve a defendant of liability for a negligent act, the negligence intervening between the defendant's negligent act and the injury must entirely supersede the operation of the defendant's negligence that it alone causes the injury, without any contributing factor by the defendant. A superseding cause is an independent event, not reasonably foreseeable, that completely breaks the connection between the defendant's original negligent act and the alleged injury.

A defendant radiologist argued unsuccessfully that the superseding event of the ordering physician not reading the abnormal report of a chest x-ray he ordered was the proximate cause for failing to treat lung cancer. The proximate cause of an event is that act or omission that, in natural and continuous sequence, unbroken by an intervening cause, produces the event and without which that event would not have occurred. Because the radiologist assumed that the ordering physician would read the report, to prevail with an argument of a superseding cause, the radiologist needed to show that it was not foreseeable for a referring physician not to read a report on a patient. The Ohio appellate court reversed on a legal technicality and remanded to the lower court for a new trial. The radiologist settled out of court rather than risk another trial.

A medical malpractice action was brought against a Virginia radiologist after diagnosing a patient with deep vein thrombosis who subsequently died from pulmonary embolism. The radiologist did not directly communicate with the patient's treating physician but rather only sent the treating physician a facsimile message, which was received, with the diagnosis of deep vein thrombosis. However, the treating physician failed to read the report before the patient's death. The radiologist argued that the superseding cause of the referring physician not reading the facsimile message was the reason that the patient was not properly treated. However, the Virginia Supreme Court held that on the question of causation, the evidence proved without contradiction that the communication problems in this case were begun and put into motion by the radiologist's failure to make direct contact with the referring physician or even the patient. Furthermore, an intervening of cause does not operate to exempt a defendant from liability if that cause is put into operation by the defendant's wrongful act or omission.

In a recent Illinois case, a 9-year-old boy with cough, chest pain, and fever was brought to a Chicago hospital late in the evening. The emergency room physician ordered a chest x-ray and read it as showing pneumonia. He discussed the finding with a paediatrician, who admitted the boy and started treatment with azithromycin. The radiologist correctly interpreted the chest x-ray the next morning as showing cavities, suggestive of tuberculosis or fungus, but did not call the emergency room physician or the paediatrician about the discrepancy. The paediatrician did not call for a consultation with a pulmonologist or infectious disease specialist and discharged the boy 2 days later. The patient returned 6 days later in sepsis, and a chest x-ray showed progressive bilateral cavitory disease, diagnosed as blastomycosis. He was aggressively treated with amphotericin B but died from necrotising blastomycosis pneumonia 1 month later. A lawsuit was filed against the hospital, the emergency room physician, the paediatrician, and the radiologist. The hospital and paediatrician settled out for a total of \$1.39 million before the trial began, and the trial continued against the emergency room physician and the radiologist. The jury found the emergency room physician not liable but found the radiologist liable for the full jury verdict of over \$4 million.

What is clear here is that there are a series of cases in which the holding against the radiologists have been adverse regardless of the superseding or intervening errors that occurred by other physicians if the radiologists were the first in the chain of events that resulted in the bad outcome. Because a radiologist is usually the first to make the diagnosis on an imaging study, this squarely places the responsibility on the radiologist to not only communicate the unexpected finding but also to ensure that it was properly received by the intended recipient.

Where Does the Duty of the Radiologist End?

No longer can radiologists claim that their duty to patients ends when they have correctly made diagnoses and dictated reports. There is an increasing onus being placed on radiologists to ensure that reports are communicated to ordering physicians, especially when there are urgent or unexpected findings [18]. Once verbal communication has been completed, it must be contemporaneously documented. Because there is no documentation that it was received by the intended recipient, virtually all state appellate courts have held that even if a report is faxed to the ordering physician, the radiologist may be liable for any patient injury resulting if the ordering physician claims that the report was never received. Documentation is so important because jurors give it considerably more weight than what a defendant claims to remember years after the event. If communication is not documented, jurors may not believe that it occurred. Proper documentation shifts the burden of proof to the plaintiff to show that the defendant did not say or do what was documented. Ideally, the documentation should be placed in the radiology report, when possible. The referring or treating physician also “shares in responsibility of obtaining results of imaging studies he or she orders” [7]. When in doubt about receipt of the findings, it should be handled as a non-routine communication. This is where radiologists have the greatest problem.

Reducing Risk

Risk cannot be eliminated, but it can be managed once it has been identified. Although reducing risk may result in decreased exposure to potential malpractice lawsuits, it will usually result in better patient care and patient safety [19]. National studies show that as many as 20% of radiology practices do not have formal, written policies on the communication of findings. Insurance companies have documented that referring physicians are not contacted on urgent or significant findings in approximately 60% of malpractice cases. More than half of these lawsuits are related to issues regarding communication and follow-up with important findings.

Most state appellate courts have ruled that radiologists who commit negligent acts that result in injuries to patients are generally legally liable, even if other physicians involved in the care of the patients committed acts of negligence more egregious than those of radiologists. It is radiologists who are ultimately responsible for conveying unexpected or adverse findings to ordering physicians and patients. The courts are increasingly expecting all physicians involved in the care of patients to share the same responsibilities and duties as primary care physicians. Non-routine communication should be handled in a manner that gets the information to the ordering physician. The emphasis should be placed on the timely receipt of the report, rather than the particular method of delivery. However, it is imperative that non-routine communication be documented with the date, the time, and the name of the person who received the communication. The content of that communication should be summarised as well.

Where are We Heading?

Several of the cases presented here are the result of settlements and trial decisions and have no precedent-

setting value. However, even though they are presented here to illustrate teaching points, there is much to be learned for radiologists to modify their behaviour. Settlements and trial decisions show the trend and set the stage of what is happening in malpractice litigation before they even become case law.

The art of medicine includes communicating with patients, physicians, and other health care providers. Communication that is clear, comprehensive, and directed to the appropriate receiver is key to quality patient care. If this critical part of patient care is left to individuals who are not directly responsible for the care of patients, the communication will potentially omit essential information. The ACR practice guideline for communication supports the role of the radiologist "as a physician consultant by encouraging physician to physician communication."

Communicating Directly to Patients

In 1987 and 1989, state appellate courts in New Jersey and Arkansas alluded that radiologists may need to communicate directly with patients. Radiologists are already doing this for self-referred patients under the federally mandated Mammography Quality Standards Act of 1992. The fact that this legislation requires reports to be sent directly to patients has drastically reduced mammography malpractice lawsuits alleging failure to communicate. The ACR guideline on communication specifically states that "the diagnostic imager has an ethical responsibility to ensure communication of unexpected or serious findings to the patient." A Pennsylvania legislator recently introduced a bill in 2008 titled the Patient Test Result Information Act, which would require physicians to send written copies of summaries of test results of diagnostic imaging services performed directly to patients within 10 days of sending the test results to the ordering physicians. Communicating unexpected findings directly to patients could minimise malpractice exposure if the results do not get to referring physicians in a timely manner. If a patient receives a report directly from a radiologist, the report should advise the patient how to contact the radiologist if further clarification is needed. However, neither the courts nor the ACR considers communicating directly to patients to be the standard of care, although there does seem to be a trend in that direction.

Using IT to Facilitate Communication

The communication of results is only as effective as the methods used to convey the results. Patients are more likely to experience positive outcomes in hospitals using IT systems. A recent study of 98 hospitals in Florida demonstrated that hospitals with more information systems performed better on risk management patient safety measures than those without such systems. Clinical IT adoption was related to more positive patient safety outcome measures. Hospitals with the most sophisticated and mature IT infrastructures performed significantly better on patient safety. Computer-based automated systems can assist radiologists with patient safety compliance. They can also be incorporated into facilitating communication and documenting that communication.

Closed-loop critical results communication tracking essentially eliminates the risk for dropped communications. However, there has to be seamless integration with existing radiology information systems, producing an audit trail to track the communication and document receipt. The name of the person to whom the communication is delivered, as well as the means of communication and time of delivery, should be included. The rapid proliferation of IT in medicine may be partially responsible for the public's demand for accurate and timely communication of unexpected findings. When patients can reach any of their friends in seconds with the touch of a screen or the push of a button, they have difficulty understanding why radiologists are unable to get their results to the ordering physicians. Paradoxically, IT may provide the solution. It can result in better communication, overall performance improvement, significant cost saving, and malpractice risk reduction. As IT products become more widespread, an automated electronic audit trail of all of the steps of communication of such information will become the common standard practice requirement.

Key Points:

- Failure to communicate is one of the greatest problems facing radiologists today.
- Duty to the patient does not end with the written report.
- Communication with the ordering physician must be timely, appropriate, and documented.
- Radiologists have the greatest problem when communicating unexpected findings.

- There is an increasing trend to communicate results directly to patients.
- Every practice should develop a written policy on the communication of urgent and unexpected findings.
- Having a written communication policy is one area where radiologists can make a positive change to improve patient care and reduce the risk for being sued and losing.
- Radiologists can use IT to help facilitate communication.

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