Diagnostic Radiology Reporting and Communication: The ACR Guideline

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The ACR adopted its "Guideline for Communication: Diagnostic Radiology" in 1991. Since its adoption, the guideline has been the subject of considerable discussion and controversy. In response to more than a decade of debate, the ACR appointed a task force in the summer of 2003 to research and analyze claims and litigation decisions that have been related to the communication or reporting of imaging studies by radiologists. Furthermore, the task force was charged with making recommendations regarding the status and impact of the existing communication guideline. The only specific directions to the task force were to take into account the ACR's motto, "Quality is our image," in the recognition that communication plays an essential role in safety and quality. The task force consulted outside legal counsel, reviewed claims data from many sources, and performed a survey of the ACR's membership. Furthermore, the task force was divided into four working groups to focus on the data and make specific recommendations. The products of the working groups were assembled into a final report that was presented to the ACR Board of Chancellors in the winter of 2004. This report, including five recommendations, and a draft for a new communication guideline were presented to the ACR Council at the annual meeting in May 2004.

Key Words: Communication guideline, radiology reports, legal review

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INTRODUCTION

Since its adoption in 1991 at the ACR annual meeting, the ACR's "Guideline for Communication: Diagnostic Radiology" [1] has been the subject of much discussion and criticism. The primary focus of the discussion has centered on the perception of many college members that the guideline has been used against radiologists in medical liability claims and lawsuits. Subsequent revisions of the guideline, including the name change from "standard" to "guideline" have not diminished the intensity of the debate surrounding the value or harm of the guideline to radiologists.

The debate surfaced again during the ACR's 2003 annual meeting, when the Oklahoma State Radiological Society sponsored a resolution [2] calling for the replacement of the ACR's communication guideline with a substitute guideline drafted by the Oklahoma chapter. The resolution was debated on the floor of the ACR Council, submitted to a reference committee for action, and ultimately referred back to the ACR Board of Chancellors. The Board of Chancellors, under the direction of its chair, Dr. Amis, appointed a task force to review and thoroughly investigate the concerns of the membership relating to communication and diagnostic reporting.

TASK FORCE CHARGE

The task force was charged with reviewing the Oklahoma chapter's draft communication guideline, all published versions of the ACR diagnostic communication guideline, and any other ACR documents that discussed or reported on communication issues. The task force was asked to review and analyze claims and litigation decisions related to communication or reporting imaging studies by radiologists. This included collecting data from malpractice insurance carriers and working with a legal firm to research reported litigation cases in which communication errors were alleged. The ACR's membership was surveyed to assess members' attitudes and understanding of diagnostic reporting and communication requirements.

On the basis of an evaluation of all the collected research, the task force was directed to make specific recommendations. It was clear in the charge to the task force that the recommendations could range from maintaining the current communication guideline to recommending its withdrawal or the creation of a new document. The

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only specific considerations the task force was directed to take into account were the ACR's motto, "Quality is our image," and the fact that deficiencies in communication often result in medical errors causing patient injury.

LEGAL REVIEW

To better ascertain the legal aspects of diagnostic reporting, the task force retained the legal services of the Chicago law firm of Sidley & Austin. Sidley & Austin's lawyers, well versed in the practice environment of hospital-based physicians, were presented with a series of questions to address. The first question dealt with the extent to which the existing communication guideline, or its predecessors, had exposed radiologists to additional liability for alleged errors of communication. To find the answer to this question, Sidley & Austin's lawyers researched radiology communication cases from both before and after the first publication of the ACR's communication guideline in 1991.

The legal review concluded, "There is no doubt that, even if the Guideline was withdrawn, radiologists would have liability for communications that a judge or jury deemed, in retrospect, to have been inadequate" [3]. Case law strongly suggests that radiologists are subject to liability for the failure of adequate communication independent of the guideline. That is, there would be liability for communication-related errors even if there had never been a guideline from the ACR. As one case noted, "Communication of a diagnosis so that it may be beneficially utilized may be altogether as important as the diagnosis itself" [4].

The same series of cases also provided the answers to the second and third questions posed to Sidley & Austin. What findings are so significant that they require direct contact with the responsible clinician? Should a significant change between a preliminary report and a final report be communicated directly to the attending physician? Four situations identified from the case law provide the answers: (1) the findings suggest a need for immediate medical intervention; (2) the conclusions of the radiologist differ from a previous interpretation; (3) the findings suggest a condition that is likely to worsen over time if not promptly addressed; and, (4) the findings are unclear, and follow-up is required. As one case stated, "Because of the significance of the x-ray report and the great danger to the patient, medical standards would require telephone communication to the attending physician of the x-ray diagnosis" [5]. This means that under these circumstances, the "established" or ordinary report process may be inadequate, and the radiologist should make an extraordinary effort to accomplish effective communication and its documentation. According to one decision, the method of communication and its receipt become as important as the findings [6].

One major issue of contention with the guideline has been what constitutes an acceptable method of communication. In addition to direct communication, what are the appropriate methods of communication? Depending on the urgency of the situation, a text page, facsimile, or e-mail may be appropriate, as long as receipt of the communication can somehow be demonstrated and documented, and patient confidentiality be respected (per the Health Insurance Portability and Accountability Act). Although not all the reported cases agree, the majority of the cases reviewed clearly place "an affirmative duty on the radiologist to make sure that the clinician has reviewed the relevant findings" [3].

This issue of an affirmative duty placed on radiologists to monitor the delivery of radiology reports causes great concern among the ACR's membership. To address this issue, Sidley & Austin was asked whether the communication guideline could be crafted to place liability or responsibility on the ordering physician for failure to follow-up with ordered studies. The response was "No." Any attempt to shift responsibility would not be successful. In most cases, responsibility is shared, as suggested in the current ACR communication guideline. More effort should be spent on delineating in the guideline what is reasonable for follow-up and why. The guideline should encourage radiology departments to develop communication policies and recommend that such policies be shared and harmonized with other departments within a facility. These efforts, if implemented and followed, would ease the burden of this affirmative duty and provide radiologists a better chance of success in front of a jury.

VERDICTS, SETTLEMENTS, AND INSURANCE INDUSTRY DATA

As was mentioned earlier, the Physician Insurers Association of America (PIAA) notes that communication errors in radiology are commonplace. In a 1997 claims study [7] conducted with the ACR, 144 claims and lawsuits with adverse patient outcomes were identified by the PIAA as primarily involving communication issues. The report noted specific communication errors: (1) the written report was not issued in clinically appropriate time (15 cases), (2) the report was sent to the wrong physician or patient (15 cases), and (3) the radiologist failed to directly contact the referring physician regarding urgent or significant unexpected findings (86 cases). In 20% of the cases, the radiology department failed to have in place a communication policy.

The PIAA published another claims survey in 2002 that reported on 450 breast cancer claims filed from 1995

to 2002 [8]. That survey found that 28% of the claims involved some aspect of a communication breakdown that resulted in a delay in diagnosis. One hundred claims were specifically identified as communication claims with the following alleged errors: (1) no direct contact was made for urgent or significant unexpected findings 71% of the time, (2) there was a failure to document attempts to communicate 90% of the time, and (3) no department policy was in place to address communication issues 33% of the time.

In addition to the PIAA's studies, the task force reviewed summaries of medical liability cases reported in *Medical Malpractice Verdicts, Settlements and Experts*, a liability reporter and one of the largest such publications of its kind. Since 1985, it has reported verdicts and settlements from all 50 states. The task force reviewed the complete records of the publication from 1999 through 2003. During that time, 46 communication cases from 17 different states were reported and resulted in either a verdict (21 cases for defense or plaintiff) or a settlement (25 cases). That is an average of more than 9 communication cases a year. In 25 of the cases, the patient was dead by the time of the trial or the settlement as a result of the delay in communicating the findings. Only 1 case mentioned the ACR's communication guideline.

The cases revealed several important and interesting facts. Radiologist defendants were held responsible in 25 of the cases, although other physician defendants generally shared in the payment of the award or settlement, which averaged $1.9 million per case. In 17 cases, the breakdown in communication was between the emergency department and radiology. In most instances, an imaging study was first seen in the emergency department by an emergency department physician, who initiated treatment decisions on the basis of an incorrect interpretation. Later in the day or, most likely, the next day, a radiologist interpreted the image differently, requiring that the patient receive different follow-up or treatment. In these instances, the information was never conveyed to the appropriate treating physician or to the patient. In 25 of the cases, the miscommunication involved chest x-rays, and 6 cases involved mammograms. The low number of mammography cases is attributed to the direct reporting of results to patients under the requirements of the Mammography Quality Standards Act. In each of the 6 instances reported, the case began before the direct reporting requirements of the Mammography Quality Standards Act were implemented in 1999.

SURVEY RESULTS

A survey of the ACR's membership was conducted through *ACR E-News* to assess members' sentiments regarding the communication guideline. Specific questions addressed the content of the radiology report as recommended in the guideline and whether members agreed or disagreed with the guideline. Other questions were directed to the litigation and claims experience of members and to what extent, if any, the guideline had affected that experience.

Although the guideline is considered very controversial, only 172 members responded to the survey, with a majority of the responders acknowledging being familiar with the guideline and following it. The small number of responses was surprising and suggests an indifference to the debate over the utility of the guideline that was not expected. However, 43 members acknowledged their involvement in malpractice claims or lawsuits (in which the communication guideline was mentioned) as either defendants or expert witnesses during the past 5 years. Only 21 of the responses provided sufficient information to assess the guideline's impact on the member. In 16 cases, the guideline was used in allegations against a radiologist but resulted in adverse settlements or verdicts only 7 times.

TASK FORCE WORKING GROUPS

The task force was divided into four working groups. Each working group was assigned a specific communication issue to research and discuss and suggest ways in which the issue might be resolved. The issues were selected on the basis of the answers to the questions in Sidley & Austin's legal review.

Group 1: Direct Communication

Direct communication is defined in the current version of the ACR's guideline as communication accomplished in person or by telephone [1]. Generally, it is achieved by doctor-to-doctor communication. However, depending on the circumstances and the interpreting radiologist's judgment, the complexity and urgency of delivering the findings may warrant using an agent for both the delivery and the receipt of the report. This may be accomplished using a surrogate, such as a nurse in charge of the patient's care, the ordering physician's call partner, or another representative of the ordering physician. The use of a surrogate recognizes that the ordering physician may not be readily available in all cases. The radiologist may also use a surrogate in delivering the communication but should be aware that any failure on the part of the surrogate will most likely be attributed to the radiologist.

The ACR's communication guideline has historically recognized findings that suggest a need for immediate or urgent medical intervention as requiring direct communication. Generally, these cases come through the emer-

gency department but may come from other sources within the medical facility. Good examples of such cases include a tension pneumothorax, a misplaced endotracheal tube, or free air in the abdomen. For the most part, these cases are easily identified, and the employment of direct communication is not disputed.

A second group of cases involves situations in which the findings diverge from a preceding interpretation. Many of these cases occur when a patient is first seen in the emergency department at night, and the images are initially read by a nonradiologist or by a resident. A subsequent review of the images the next morning by a radiologist results in a different interpretation. Direct communication is important in these cases because the initial report may contain inaccurate or misleading information that could lead to withholding or delaying of needed medical treatment or providing inappropriate treatment. In either scenario, the patient runs the risk of additional serious injury or death that was avoidable. These cases tend to be the least defensible in court, because the correct interpretation was ultimately made, but a failure to act on the findings in a timely fashion resulted in a bad outcome.

A third situation requiring direct communication is when "significant and/or unexpected" findings are discovered. These tend to be the most problematic cases, because they do not require immediate attention but if not acted on will most likely result in an adverse outcome for the patient. An example is a preoperative chest x-ray that shows an abnormality that should come to the attention of the surgeon or the anesthesiologist before surgery, such as air space disease consistent with pneumonia. In addition, this category includes any imaging test that results in a finding that is unexpected, on the basis of the provided clinical history, and that may progress over time if not promptly addressed. A typical example is a pulmonary nodule in the lung field identified on a preoperative chest radiograph for another type of surgery. This category might also include a situation in which the findings are ambiguous and require further testing. An example is a chest computed tomographic scan that includes part of the upper abdomen, showing an ambiguous liver lesion or an incidental renal mass.

Finally, the working group addressed the fourth situation requiring direct communication: third-party referrals, such as employment or insurance company physicals. In noting that the recent trend in court decisions is to hold radiologists accountable for the delivery of reports directly to patients, it is appropriate to suggest some alternative methods for dealing with these types of cases. The employment physical could designate a physician by name to receive the radiology report. Insurance companies could designate the company's medical director, or it could be the patient's primary care physician. One recent Arizona Supreme Court decision stated that radiologists could "deal with this issue as a matter of contract." Radiologists could "require x-ray subjects [patients] to consent to having the results reported only to the employers" [9]. In the absence of the identification of a specific responsible physician, the radiologist must understand that he or she is, *de facto*, entering into a formal (legal) "doctor-patient relationship" with the patient and therefore should assume responsibility for the communication of any results directly to the patient.

Group 2: The Documentation of Communication Between Clinicians

Documentation preserves a history of what has been communicated for the purpose of substantiating certain facts and events. Absent documentation, important facts might be forgotten, misapplied, or even fabricated. Courts and juries may, and frequently do, assume that the absence of documentation implies that the contested facts or events never took place. Thus, it is extremely important to advise radiologists to document their communications with clinicians. As the case law and other research materials demonstrate, in the event of litigation, good documentation serves as strong evidence to convince a jury that a radiologist acted reasonably.

There are a number of situations in which a radiologist may be asked to provide his or her expertise in a setting that does not result in a "formal" written report, but the information is used for treatment purposes. Such communications often take the form of a "curbside consultation" or an "informal opinion." The environment in which the interpretation is provided might be less than optimal. There likely may not be prior studies for comparison, little or no knowledge of prior interpretations, or an inadequate patient history. The radiologist's normal controlled workstation environment is absent.

The task force strongly suggests that should a radiologist feel compelled to provide consultations of this nature, any interpretations used for patient care management should be documented in the patient's medical record, if available, by the radiologist. If the medical record is not available, documentation should occur in a reasonable substitute location. This will help ensure that the interpretation by the radiologist is accurately received by treating clinicians and reduces any possible inaccuracies that might be documented in the referring practitioner's notes. In addition to the appropriate medical information, the written report by the radiologist should note if the study was provided without benefit of patient history, prior reports, or films. For reviewing an outside film, even more information should be included in the written report: (1) the clinical question to be answered;

(2) relevant information from all reviewed studies; and (3) technical limitations that may decrease the accuracy of the report, such as creased films, water damage, or overexposure.

There is no doubt that documentation of these types of discussions with treating physicians may be burdensome and take considerable effort. It is possible that the patient's medical record may not be readily available to record such discussions. The radiologist may feel that "formalizing" these discussions could have a negative impact on his or her relationship with other physicians. After weighing all the considerations, the radiologist may decide that under the circumstances in a particular situation, formalizing the discussions is not practical. In such situations, even keeping a personal journal or log to record such events may prove beneficial. However, there is no question that the lack of contemporaneous documentation by the radiologist of these readings is a huge source of potential liability. Ultimately, the radiologist must weigh the various risks involved in a particular course of action and decide which course to follow.

Group 3: Preliminary and Final Reports

A preliminary report may out of necessity be based on limited or incomplete clinical information due to ongoing circumstances or a need for an emphasis on immediate management of the patient. By its very nature, it may not contain all reportable findings. In some instances, the preliminary report may be labeled as a "draft report" or "variance report." (A true draft report should be considered a completely separate document and is discussed below.) The true nature of the report, however, is not determined by the name of the document but by its purpose and how it is used. The report may take the form of a verbal or written communication. It may be typed or simply handwritten notes or verbal notes on a transcription system. The key to a preliminary report is that it is time sensitive and made for the purpose of providing information necessary for the prompt medical management of the patient.

All verbal preliminary reports should be reduced to written form as soon as practicable to limit the possibility of recording inaccurate information or losing information. It is also recommended that authentication of preliminary reports be done by the physician who interpreted the study. The proper labeling of a preliminary report is important to avoid confusion with the final report and to alert clinicians that additional information may be available at a later time.

The issue of discrepancies between various reports of the same image was partially addressed under direct communication. Whether the discrepancy is between an initial reading by a nonradiologist (reading from the emergency department) and a subsequent interpretation by a radiologist or a preliminary reading and a final report preformed by the same radiologist, such discrepancies should be communicated to the referring clinician and appropriately documented. Specific department policies should be developed to handle such situations. Additionally, any person who receives a copy of the preliminary report should also be on the distribution list for the final report. This list should include the patient's medical record, the clinician who requested the report, and others, if they can be identified, who may have used the preliminary report for patient treatment.

The task force recognized that some reports are not meant for distribution or to make treatment decisions. These "draft reports" are works in progress. They may take the form of handwritten notes, a recording, or a printed document. A draft report is subject to revision by its author until such time as it is intended for use as a preliminary or final report. Earlier revisions of a draft report are very likely to be discarded once a newer version is created. Be aware, however, that a draft report may inadvertently be used to provide patient management decisions, even without the author's knowledge. In such cases, it should be treated as a preliminary report and requires close follow-up with appropriate documentation.

Group 4: Methods of Communication and Shared Responsibility

The key to successful communication is making sure the method selected to deliver the information is appropriate to the circumstances. As mentioned earlier, for emergent situations, personal or telephone communication of the information is most suitable. This is generally understood and normally not an issue. For the most part, this suggestion in the ACR's communication guideline is followed without much debate or negative consequence.

According to the PIAA, communication errors are commonplace and one of the top five reasons radiologists are sued for medical malpractice [10]. A communication breakdown usually occurs when a mailed report never reaches its destination, a medical record entry is overlooked and never read, or the hospital's internal reporting system fails. The legal research tells us that in such cases, the fault is usually assigned to the radiologist by the court.

To avoid this pitfall and provide better patient care, the radiology department should work with the hospital administration and all referral sources to reach agreement on preferred methods of communicating results between all responsible parties. All interested parties must be involved, and the needs and considerations of each (radiologists, clinicians, and patients) should be addressed. Findings should be communicated in a manner and time

that provide the most benefit to the patient. Previous reports and images should be available for review and comparison with the current study when appropriate. A request for imaging should include all relevant clinical information to better assist the radiologist in producing a complete and meaningful report.

Any reasonable communication system or method of communication should be considered. Systems that include text pager, e-mail, facsimile, voice messaging, or other nontraditional approaches that ensure the receipt of the communication and patient confidentiality may be appropriate. The communication system should be equipped with checks and balances to minimize a system breakdown. One approach could be as simple as requiring the request for consultation to provide a telephone number or other contact information to receive communication of findings that are less than urgent but could cause harm to the patient if not acted on in a timely fashion.

A radiology department policy on communication can potentially save the lives of patients as well as serve to reduce the liability of radiologists. Written department policies can aid in defining the various responsibilities and describe the appropriate checks and balances. To be effective, however, any written policy must be followed and shared with others within the institution in which the radiologists provide their services. This policy should include but not necessarily be limited to

1. guidance for communicating results on the basis of the general nature of the findings, such as emergent, unexpected, but not immediately life-threatening or studies requiring additional testing;
2. guidance on which individuals should be responsible for receiving communication of the findings and what methods of communication are acceptable, which should assist the radiologist in discharging his or her responsibility by identifying others who may receive findings when the ordering clinician is not available or not clearly discernable;
3. guidance on what information needs to be documented and where to document the information, such as in the final report, the patient's medical record, or the department log; and
4. guidance on handling nontraditional patient referrals, including nonphysician requests (nurse practitioners, physician assistants), self-referred patients, and third-party referrals, such as insurance or employment physicals.

CONCLUSION AND RECOMMENDATIONS

The most difficult aspect of the task force's responsibility was assessing the impact of the guideline on the ACR's membership. Any document created by the ACR has the potential to be used by plaintiffs and defendants in malpractice liability cases to support a position. The fact that the document is called a standard, a guideline, or even a white paper on risk management makes little difference. A properly crafted document, however, can serve to guide radiologists through the various communication issues as well as educate the courts on the difficult logistics of communicating results to various practice settings and the shared responsibility of all involved parties. The value of the document is in its creation by the premier organization for radiologists and radiation oncologists. What is important is that any document created by the ACR should reflect what is the best possible practice for radiology patients and provides the best guide for the ACR's membership in what is legally expected of them.

The research of the task force clearly demonstrates that the absence of a document on communication does not relieve the radiologist of certain obligations to communicate the results of imaging studies. The requirements of the 2005 National Patient Safety Goal of the Joint Commission on Accreditation of Healthcare Organizations for the improvement of the effectiveness of communication among caregivers makes this abundantly clear [11]. Therefore, on the basis of the research and mindful of the its charge, the task force concluded its report with five specific recommendations that were presented to the ACR Board of Chancellors:

1. Retain the ACR's guideline on communication but with extensive revisions on the basis of the research of the task force.
2. Circulate any new draft guideline to other affected medical organizations for review and comment.
3. Recommend that the ACR host a summit with other medical organizations to explore communication issues with the intention of developing ways to reduce communication errors that result in patient injury.
4. In addition to a revised guideline, draft a risk management document that more fully explores communication issues with a view of providing information to address specific situations.
5. Support educational initiatives that monitor and disseminate guidance on communication issues, including legal decisions, to the ACR's membership on a regular basis.

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