

Stepping Out Further from the Shadows: Disclosure of Harmful Radiologic Errors to Patients¹

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Expectations for how radiologists should communicate with patients are in rapid evolution (1–7). Of all the communication challenges radiologists may encounter, disclosing harmful radiologic errors to patients looms as perhaps the most difficult. Calls are increasing for radiologists to communicate directly and transparently with patients after errors (8–10). As Leonard Berlin has written: “Ethical, medical, Joint Commission, and other legal considerations unequivocally call for—in fact, mandate—radiologists to promptly and completely divulge to patients or patients’ families the occurrence and nature of any error or adverse event that takes place during a diagnostic or therapeutic radiologic procedure” (8).

At present, disclosure of radiologic errors to patients is not measuring up to this important recommendation. Little attention has been paid to the distinctive difficulties radiologists may encounter when considering whether and how to talk with patients about errors. No radiologic professional guidelines address error disclosure, and no educational programs provide guidance for handling these difficult conversations. If management of radiologic error disclosure is not guided by well-articulated professional standards, radiologists risk falling short of emerging professional norms around patient-centered care, as well as creating haphazard and even unsafe practice patterns. Indeed, patient safety leaders emphasize that failure to achieve accountability and transparency around errors undermines patient safety (11). Further, educational initiatives to enhance radiologists’ communication and error disclosure skills are crucial to establishing environments where patients feel respected and confident in the quality of care they are receiving (12).

The purpose of this editorial is to clarify the rationale for disclosure of

errors in imaging directly to patients by radiologists. In addition, it describes barriers to direct radiologist-patient communication about radiologic errors and considers solutions for enhancing disclosure that include radiology-specific guidelines, educational programs, and research.

Rationale for Disclosure

Normative and Professional Standards

Disclosing harmful medical errors to patients has emerged as a professional standard across medical specialties (8,9,11–15). Transparent communication with patients following an error has multiple potential benefits (12). These include respecting patient autonomy, reinforcing the patient-provider relationship, and maintaining the patient’s confidence in the honesty and integrity of his or her provider and in the health delivery system. In addition, error disclosure can prevent misconceptions patients might have about what caused their adverse event, facilitating informed consent about future care (9,11–15). A culture that supports disclosure of error and open communication between doctors and their patients also supports a culture of patient safety, through increased acknowledgment and ownership of errors made (16).

Despite the recognized benefits of error disclosure from the patient perspective, adoption of professional standards around disclosure has long been tempered by risk management concerns about litigation risk. Traditionally, risk managers advised physicians to withhold error disclosure from patients out of fear of lawsuits (3,8,15,17). Medico-legal experts have long differed over the benefits and disadvantages of direct physician-to-patient disclosures. However, a better understanding has recently emerged about patients’ preferences for

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disclosure and about the relationship between disclosure and litigation (15). There is greater recognition that many lawsuits result from patients' perceptions about inadequate (or absent) disclosure processes. Published reports from institutions that have adopted open disclosure programs suggest that these efforts have positively affected their malpractice experiences (15). Although these published experiences cannot be generalized to all health care systems and patient populations, risk managers increasingly emphasize open disclosure after harmful errors as critical to risk management and reducing liability exposure (14,18).

Stronger adoption of medical error disclosure processes has also grown in concert with more robust guidelines. In 2001, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) established the first national requirement for disclosure of adverse events to patients (14,19). The JCAHO guideline was modest in scope but revolutionary in precedent. Its mandate to inform patients about "unanticipated outcomes" led medical institutions nationwide to adopt disclosure policies (14). Although the JCAHO guideline provided general normative guidance regarding disclosure of unanticipated events, it did not require that patients be informed about whether an unanticipated outcome was due to an error (14). The National Quality Forum (NQF) and Institute for Healthcare Improvement (IHI) have now issued detailed guidelines for management and disclosure of unanticipated adverse events that include provision of facts about errors when they occur (14,20–22). These consensus guidelines provide specific, evidence-based recommendations about how institutions and individual providers should respond to these events (13,14). Further, they recast disclosure as an issue of patient safety and quality care, rather than one only of risk management.

Radiologic Practice and Culture

Direct radiologist-to-patient communication about harmful errors extends naturally from the convergence of numerous

developments in radiologic practice and culture. Historically, radiologists had little direct patient contact and relied on treating clinicians to communicate with patients. However, changing diagnostic and interventional radiology services now frequently place radiologists at the front line of patient health care interactions (23,24). Additionally, evolving imaging capabilities and information technology now often facilitate, rather than inhibit, radiologists' potential direct and immediate exchanges with patients. The time from initiation to finalization of imaging examinations historically took hours to days. Now, finalized reports may be available before patients leave the radiology suite (3,4,25,26). These developments have spurred calls for radiologists to communicate with patients directly (3,4,7,25,27,28). In response, some radiology groups now offer preliminary interpretations to all outpatients and have created outpatient practice settings to facilitate immediate radiologist-patient communication (3,7,25,26).

The momentum toward direct radiologist-patient communication also reflects the broader movement within radiology and medicine toward patient-centered care (1). Patient-centered approaches involve heightened accountability to orient care to patients' needs and preferences. A precedent for this shift was established in breast imaging in 1998, when mammography centers were required to provide diagnostic results directly to patients, either at the time of the examination or through the mail (29). Recent court rulings further reinforce expectations for direct radiologist responsibility to patients, with courts in Virginia, Arizona, and Ohio clarifying that radiologists have, at minimum, a shared responsibility with the referring provider to ensure that patients are aware of their imaging test results (30–32). The Pennsylvania "Patient Test Result Information Act" more directly clarified that centers performing imaging services must send test results directly to the patient as well as to the patient's prescribing physician (3,6,33).

Changes in how patients access their health information may increase pressure on radiologists to communicate

directly with patients about radiologic errors. Numerous institutions have created Web-based portals that allow patients access to their radiologic reports (34,35). These reports may include not only diagnostic and prognostic information, but also details about errors. Thus, the likelihood is increasing that patients will learn about medical errors as they review their electronic medical records and will contact their radiologists directly for an explanation.

New approaches to quality assurance may further compel radiologists to communicate directly with patients about errors. Quality improvement processes increasingly involve retrospective reviews of radiologic images and reports (36). Inevitably, these reviews will uncover adverse events that result from diagnostic errors and/or flawed radiology-provider communications. Yet few of these quality improvement programs include considerations of whether and how patients should be informed about clear-cut errors discovered during such reviews.

Challenges to Disclosure

Despite compelling justification for radiologist-to-patient disclosure about errors, there are substantial obstacles.

Medical Culture

One critical barrier to disclosure of errors is a medical culture in which most physicians are reluctant to communicate openly with patients about unanticipated adverse events (8,13,14,37–39). The limited empirical evidence available highlights radiologists' concerns about disclosure (8,9). One survey of breast imagers found that only 15% would fully disclose the details of a mammographic error that resulted in a delayed cancer diagnosis (9).

Radiologists, like many other physicians, may hesitate to communicate with full candor when medical errors occur because the perceived consequences are frightening (37). Malpractice fears are paramount (8,17,37,40), although, interestingly, radiologists' reluctance to disclose does not correlate with malpractice attitudes or experience (9). Radiologists may also worry about

their financial well-being and about losing professional standing with patients, colleagues, and institutions (8).

Numerous institutional barriers also inhibit frank discussions with patients about medical errors. Many institutions may inappropriately emphasize individual culpability for errors, rather than acknowledge the systemic or institutional failures that commonly underlie breakdowns in care (10,37). This problem is exacerbated by the tort system, which is poorly adapted to the concept of system errors. Some institutions have not fully embraced transparency because they are fearful of a potential loss of reputation that might result from openly acknowledging errors. Other institutions have considered disclosure to be the sole responsibility of the physician and have not created institutional mechanisms to facilitate disclosure or to support clinicians' emotional distress following errors (9,37).

Limitations and Subjectivity Inherent to Imaging

Certain obstacles to disclosure of radiologic errors are intrinsic to diagnostic imaging. The diagnostic performance of many imaging examinations is commonly somewhat limited. Accurately defining what an error is may be difficult for examinations with sensitivities and specificities substantially less than 100%. Further, a diagnostic error may be identified only in retrospect—for example, during a quality improvement process, or when another radiologist is comparing earlier studies to a current one. The fine line that exists between a reasonable judgment about benign architectural heterogeneity and a misjudgment about more ominous anatomic distortion may not be prospectively detectable. Unbiased reviews of prior studies may be difficult to obtain. Uncertainty about the significance of previous findings may be irresolvable. Moreover, it may be challenging to discuss these inherent limitations of radiologic technology with patients without sounding defensive.

Communication Barriers

Even when other obstacles to disclosure are overcome, direct communication to

patients about medical errors remains exceedingly difficult. Disclosing an error to patients can require candid acknowledgment of both individual and systemic failure. Patients and families may react with open sadness, anger, and distrust (41). Conveying any difficult or unexpected information to patients is stressful even for experienced physicians (42–45). Compared with conversations about unexpected diagnoses, physicians may approach error disclosure with considerably more fear, anxiety, and shame (10,37,43).

Most physicians lack formal training in error disclosure as well as in other difficult conversations (42–45). For many radiologists, limited experience in direct patient communication may further impede effective communication about medical errors. Even for radiologists who commonly engage in difficult conversations with patients, such as obstetric imagers, breast imagers, pediatric imagers, and interventional radiologists, training opportunities for developing communication skills in general and disclosure skills in particular are scant.

Radiologists' traditional relationships with treating physicians and patients present other challenges to radiologic error disclosure. While radiologists have long prided themselves on being “the doctors' doctor,” they have remained cloistered within the “amorphous shadows” of their practice (25). Radiologists, treating physicians, and patients have all historically considered the radiologist-patient relationship as secondary to the treating physician's relationship with both the patient and the radiologist. As a result, radiologists, like pathologists, have sacrificed visibility and personal bonds with patients (7,25). This lack of visibility makes it difficult for some radiologists to envision approaching patients directly about radiologic errors, without the treating physician as an intermediary. Yet if radiologists remain reliant on other physicians and personnel to disclose their errors, they will have little input into whether and how errors are communicated to their patients (46).

On a practical level, the radiologist may never have met the patient. This is

distinctly different from situations, like the intensive care unit, where there might not be long-term physician-patient relationships, but where intensivists will likely have had some “face time” with the patients and their families before having to engage in these difficult conversations. Along similar lines, radiologists often do not have “natural” opportunities to hold disclosure conversations. As hard as these conversations are, they are easier if they can be integrated into an ambulatory office visit or a family meeting on the ward. Absence of a preexisting doctor-patient relationship makes the need for good communication skills even more important.

Next Steps

Guidelines

The absence of radiology-specific professional guidelines constitutes another important barrier to ensuring that harmful radiologic errors are consistently and effectively disclosed to patients. Policy guidelines developed by the major radiologic professional organizations ideally would define what constitutes radiologic error and when errors should be disclosed to patients. Guidelines would help radiologists understand what “harm” is from the patient's perspective and would provide ethical rationale that explains when radiologists should apologize personally for errors. Guidelines would further provide recommendations for how the disclosure process should proceed. The recommendations might include the issue of communicating with referring physicians when radiologic errors occur and the disclosure of errors discovered during quality improvement processes.

Radiology-specific disclosure guidelines would cultivate practice norms that would, in turn, help institutions and individuals overcome disclosure barriers and manage disclosures more effectively. The assertion of radiologist-to-patient error disclosure as a radiology leadership priority would promote greater acceptance of and comfort with disclosure. Effective guidelines would also reduce the perceived stigma around medical errors by

emphasizing systemic factors that contribute to individual errors and by placing the management of errors within larger institutional contexts that promote enhanced quality and safety. Such guidelines would instill a culture of greater support for those involved with errors and incentivize practices to encourage, rather than suppress, the disclosure process. Guidelines would address radiologists' fears that disclosure will increase malpractice risk, and they would promote understanding that well-honed error disclosure processes may confer considerable risk management benefits (15,40). Ultimately, the presence of guidelines would enhance patient and public perceptions of radiology's commitment to ensuring safety, professional standards of conduct, and patient-centered care.

The NQF and IHI guidelines on adverse events and errors provide a general blueprint for radiology (14,19,21,22). In addition to describing optimal organizational and leadership responses to acute crises, NQF and IHI guidelines specifically recommend the provision of information to patients about the facts of adverse events, any contributory system failures, and the results of related investigations (14,21,22). These guidelines further recommend that the responsible parties apologize to the patient, acknowledge any harms that have resulted from medical error, and, when appropriate, offer to pay costs associated with any additional care that is a direct consequence of the error.

Because of the complex logistics and difficult communication processes involved in error disclosure, some advocate for the use of "disclosure coaches" to facilitate the communication process (12). Disclosure coaches are specifically trained to assist others in formulating effective approaches to patients when medical errors arise. The NQF and IHI further recommend the provision of emotional support mechanisms for not only patients and families, but also clinical providers and administrators affected by errors (13,14,21,22).

Adapting the Disclosure Process for Radiologists

These recommendations require adaptation to the particular, highly variable

and subjective circumstances that encompass individual and systemic radiologic errors. In some contexts, the disclosure process in radiology may require only documented phone calls among the radiologist, patient, and treating physician to provide an explanation of the circumstances, an apology, and recommendations for further management. Such an approach might be appropriate for diagnostic errors that lead to relatively minor, time-sensitive changes in care, such as a fracture that is missed by an overnight resident and that is diagnosed by the attending radiologist the next morning. The delayed diagnosis may create considerable inconvenience for the patient who must return for care.

In more complex situations, optimal disclosure about radiologic errors to patients may require coordination among a large network of stakeholders that may include the radiologists or others who discover the error, the radiologists and/or other physicians involved with the errors, department and hospital leadership, hospital quality assurance and risk management personnel, the malpractice insurer, trained disclosure coaches, patients, and family representatives. Careful planning of the disclosure will be critical to meeting the patient's needs for information and emotional support.

Whether circumstances surrounding a given medical error are simple or complex, the disclosure process will require integration with formalized mechanisms for interprovider and provider-to-patient communication, documentation, and quality improvement. Such processes will likely become more facile as patient communication and quality assurance systems in radiology become more technologically sophisticated (6,47).

Education and Research

Programs are urgently needed to help radiologists develop the relational and communication skills necessary for effective error disclosure. Traditional didactic models for teaching communication skills may not adequately address the multifaceted nature of these cognitively

complex and emotionally charged conversations (45,48,49). Newer pedagogical programs utilize not only didactic approaches, but also educational videos and improvised role playing between participants and professional actors (12,45,50). Web-based "e-learning" programs have been developed that feature interactive online reviews of essential disclosure principles. Such online programs can provide timely support to physicians in the immediate aftermath of errors (51). These innovative approaches to teaching disclosure skills and strategies have been applied across a number of disciplines and could be adapted for radiology-specific purposes.

Given the particular nature of radiologic errors and disclosure, further research is necessary to inform both radiologic guidelines and educational programming around error disclosure. Little is known about the actual or observed experiences of either patients or radiologists who have been involved in harmful errors. The literature would benefit from publication of narratives about patients' and radiologists' experiences with disclosure, and from empirical analysis of the factors that either hindered or facilitated the disclosure process. Studies are needed to understand patients' preferences regarding the disclosure of radiologic errors, and their perceptions of how errors are managed. Finally, educational programs should be assessed with respect to their impact on radiologists' understanding of the issues around medical error and their comfort in making disclosures. Over time, outcome measures would optimally include an assessment of how educational interventions modify patients' experiences in the aftermath of radiologic errors, as well as any related impact on malpractice claims.

Conclusion

When it comes to talking with patients about harmful errors, radiologists can no longer remain secluded in the shadows. Radiologists are now held to the same standards of communication and professionalism applied to

physicians who provide direct clinical care. Disclosure of harmful medical errors directly to patients is core to these standards. Guidelines, educational programs, and further research are critical to overcoming endemic barriers to radiologic error disclosure, and to establishing optimal disclosure practices among radiologists. This objective dovetails well with current radiology priorities that are focused on enhancing communication and quality assurance, and strengthening radiologists' connections and service to patients. Radiologists who fail to disclose their errors effectively to patients risk further harm not only to the patients, but also to the profession.

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