



White Paper

Just Culture: Roadmap to Best Practice in Radiology Peer Review

Radiology Case Example:

Community Hospital ABC's quality department received a call from one of their medical staff physicians, Dr. Adams, regarding concerns he had with the ultrasound reads of radiologist, Dr. Smith. Dr. Adams was not satisfied with the level of quality and believed that Dr. Smith was consistently making errors. Dr. Smith reads on average several dozen ultrasounds a day. Although there is always a risk for a misread, this was the first performance complaint made against Dr. Smith since his employment. Hospital ABC's quality department did consider the possibility that Dr. Adams may be biased against Dr. Smith's diagnostic accuracy due to Dr. Smith being a new radiologist performing ultrasound reads at Hospital ABC. In comments to staff and to new physicians, Dr. Adams has intimated that he has a tougher standard and wants new hires to "prove themselves." However, in the past, Dr. Adams also has a history of identifying radiologists who have performed below the standard of care and is highly respected by ABC Hospital for his "sixth sense for quality performance."

Critical Thinking Questions:

1. Although Dr. Adams' clinical opinion may be valid, what if Dr. Adams is mistaken in his judgment of Dr. Smith's diagnostic performance?
2. If Dr. Smith had in fact made a mistake, resulting in a misread, what does that say about Dr. Smith's performance?
3. How would peer review of Dr. Smith impact Hospital ABC's safety culture and the future performance of Dr. Smith?
4. How should the results from the peer review of Dr. Smith be used in the advancement of radiology quality?

Conducting peer review is required by the American Board of Medical Specialties (ABMS) and The Joint Commission (TJC) for granting privileges and; thereby, is a condition for accreditation and demonstration of quality assurance. Although peer review can be educational and conducted with the intent of enhancement of a physician's practice, there is still significant room for improvement in creating a peer review process that avoids biases, is proactive, and is focused on evidence-based evaluation and the development of metrics for performance evaluation.

This White Paper will provide best practices in radiology peer review that may be used to transform traditional peer review into a "just" peer review process that not only improves physician performance, but also the quality spectrum of radiology care delivery. A heightened awareness for hospital and medical staff on the benefits of a just peer review process can be a step towards reducing radiology errors over time. We will revisit these critical thinking questions and the case scenario throughout this paper as we explore the following objectives:

White Paper Objectives

- Discuss current radiology quality and its impact on healthcare delivery
- Elevate awareness of issues in current radiology peer review processes
- Describe and introduce philosophies of a "just culture" and how it improves quality
- Summarize best practices in "just" radiology peer review that can positively impact physician performance and quality
- Discuss current and future benefits of performing a just peer review process

Radiology Quality: Impact on Healthcare Delivery

The 2011 Physician Insurers Association of America (PIAA) *Claims Trends Analysis*, which includes claims data from 1985 – 2010, indicated that out of 28 specialties, radiology is ranked in the top 10 high-risk specialties, holding the position of the sixth-highest risk specialty (1). This risk classification is due to the high level of specialization required in patient treatment, the need for vigilance and use of advanced technology, and the increased risk of injury and poor patient outcome as a result of a radiologist's errors in the use of these technological systems. According to the PIAA report, radiology has one of the highest average numbers of reported and closed claims. On average, radiology cases (closed claims with a loss payment) cost \$225,000 per closed claim.

In spite of the many risks in radiology care delivery, radiology services remain in high demand. In fact, radiology comprises about 7% of all health care dollars spent (2). However, much money is spent on costs associated with poor radiology treatment quality. Recent studies have shown that radiology interpretive accuracy has consistently demonstrated high error rates with false-negatives up to 25% - 32% and false-positives in the range of 1% - 2% of cases (3). In fact, treatment misdiagnoses resulting from radiology services account for approximately \$31 billion in downstream costs to the healthcare system (4). Radiologists and their employers are aware of these liability costs, which may lead to a tendency for radiologists to practice defensive medicine. For example, to avoid misdiagnosis when film impressions are ambiguous, radiologists may perform unnecessary further imaging, which results in higher costs for institutions and the patient. As radiology is an important necessity in healthcare delivery, focusing on quality and error-reduction strategies, such as peer review, becomes critical for cost savings, physician quality improvement, and establishing a strong organizational safety culture.

Traditional Radiology Peer Review

Traditional peer review has been historically used as a means to ensure that the practitioners are providing optimal care. Recently updated criteria for certification, credentialing, and privileging have placed an increased emphasis on the collection of practitioner-specific performance data and ongoing professional evaluation. Traditional peer review focuses on allowing individual professionals to critique their own performance, as well as the work of their colleagues, in efforts to reduce current errors, mitigate future errors and improve care outcomes. Radiology traditional peer review's purpose is to compare studies to assess reviewer accuracy and, should discrepancies exist, have a system in place to improve a physician's skills at interpretation.

The benefit of a traditional radiology peer review model is that it offers a multi-disciplinary approach in identifying causations for inaccurate reads. Also, participants in the peer review can receive some protection from legal discovery in their participation with peer review (5). However, traditional radiology peer review is somewhat limited in its ability to drive organization-wide change if the only rigorous peer review performed is on assessment of individual problem cases such as the one initiated by Dr. Adams. Traditional peer review does not uncover previously unsuspected errors. Moreover, the objectivity of a rigorous assessment is difficult because all parties are known to one another and, many times, the results from the peer review are not transparent to key stakeholders or shared widely.

Traditional Peer Review Model



Benefits of this model:

- Multi-disciplinary approach permits participants to factor in multiple causes when applicable
- Committee determination affords physician a higher level of objectivity
- Participants are assured some protection from legal discovery

Just Culture Radiology Peer Review

Although organizations such as ABMS and TJC have developed guidelines to assist providers in conducting effective peer review, they still are missing structure for using findings to incorporate learning into the whole care delivery system (5). Establishing a just peer review process presents a solution that uses peer review results to improve organization-wide quality, reduce errors and associated liability costs, and promote a culture of safety. In a just safety culture, any event related to safety, especially human or organization, is first considered as a valuable opportunity to improve operations through feedback and the dissemination of lessons learned. The just culture peer review program is proactive, ensuring all events that have the potential to be instructive are reported and investigated to discover the root cause, and that the principal players involved are given timely feedback, such as Dr. Smith and Dr. Adams, as well as others in the organization who might experience the same problem. In a just peer review process, the systems are simple, have minimal effects on regular workflow, and demonstrate immediate, as well as long-term, benefits of participation to providers participating in the peer review process.

Just Culture Peer Review Model



Benefits of this model:

- Actively uncovers unsuspected errors
- Eliminates potential bias by ensuring that reviews are double-blind
- Provides rapid feedback about errors to enable appropriate treatment
- Provides a more accurate estimate of a physician's "error rate" than anecdotal referrals
- Samples enough cases to draw meaningful conclusions about error rates and effectively drive the development of tools and best practices
- Eliminates bias from the process and ensures consistent, fair classification of errors by the peer review committee
- Identifies and discloses errors quickly enough to positively impact the care of individual patients
- Disseminates relevant information to other departments who can use it to improve their performance

Positive Results: Just Culture Radiology Peer Review Program

Patrick Hudson noted in 2001, "Most violations are caused by a desire to please rather than willfulness."

(6) Therefore, according to Hudson, radiologists are practicing medicine with the intention to provide optimal care and in most cases, if and when a safety violation is made, it is inadvertent. In a just culture, human error is inevitable and systems are continuously monitored and improved to accommodate errors. Although human error may be inevitable and not represent any sinister intent, physicians are held accountable for their actions if they violate safety procedures. If Dr. Smith is misreading x-rays because he has a lack of understanding, then that will be addressed much differently than if his misreads are due to laziness or carelessness.

A just culture peer review process functions on the fundamental component of trust, as it encourages providers to participate in the advancement of quality and safety information. However, trust does not mean that the reviewers do not draw a clear line between acceptable and unacceptable behavior. This is not a no-blame culture. A small proportion of unsafe acts are deliberately done (e.g., substance abuse, reckless non-compliance, sabotage) and they require sanctions. Blanket forgiveness on all unsafe acts would lack credibility in the eyes of providers and could be seen as unjust. A just peer review process promotes a questioning attitude, is resistant to complacency, is committed to excellence and fosters both personal accountability and corporate self-regulation in safety matters.

Ultimately, in the case of Dr. Smith, his “misread” may be a valid difference of interpretation, an incorrect (but isolated) instance, or the first instance of what has become a disturbing trend. The review process recommendations should determine the basis for the mistake, which is essential to the corrective action and to the lessons that the doctor, as well as the institution, should learn.

How is a just culture peer review process perceived by practicing radiology providers? A Clarity Group, Inc. radiology group client, Radisphere, who conducts its own radiology peer review process through its quality management program, assessed the perceptions of its staff radiologists on its just peer review process.

Radisphere staff assessment results (*) on its just culture Radiology Peer Review Program:

Staff Assessment Questions	%	Response
“The peer review process helps me.”	89.8%	I agree!
“The radiology peer review process is amongst the best I’ve ever seen.”	79.7%	I agree!
“Check-list driven information systems improve the quality of my reports.”	81.4%	I agree!
“I would refer a colleague to work for this company.”	91.5%	I agree!

(*) Survey Scale: Agree, Disagree; n = 59; Response Rate 81%; Survey Completion 2011

Although radiologist assessment results show high satisfaction regarding a just peer review processes, it will be important for Radisphere to continue focusing on error reduction. In order to ensure the minimization of errors, implementing a just culture will require utilizing its peer review data strategically; for example, analyzing the peer review information specifically to look for the “how and why” physicians make errors and then using that information to create a comprehensive and consistent framework to identify interpretive accuracy rates concerning various modalities and radiology specialty. Utilizing the accuracy rates from a just peer review process can be the foundation for creating a proactive ongoing provider quality improvement program driven by a focus on sustaining a culture of learning through

direct sharing of error-reduction strategies to its radiology providers, the radiology field, and to the healthcare community as a whole.

Jessica Riley

Project Manager

Clarity PSO, A Division of Clarity Group, Inc.

Chicago, IL

David Seidler, MD

Medical Director and Chief

Department of Emergency Medicine

Charleston Area Medical Center

Charleston, WV

Tom Piotrowski, RN, MSN, NE-BC, CSSGB

Executive Director

Clarity PSO, A Division of Clarity Group, Inc.

Chicago, IL

For more information about Clarity Group, Inc., please visit our website at www.claritygrp.com

© 2012 Clarity Group, Inc.

Sources:

- (1) "PIAA Claim Trend Analysis - January 1, 1985 - December 31, 2010." *A Comprehensive Analysis of Medical Liability Data Reported to the PIAA Data Sharing Project* (2011). Print.
- (2) "Utilization Management: An Insider's View." *Imaging Economics* (2007). 1 June 2007. Web.
- (3) Renfrew DL, Franken EA, Berbaum KS, et al. Error in radiology: classification and lesson in 182 cases presented at a problem case conference. *Radiology* 1992; 183:145-150.
- (4) Office of Inspector General, U.S. Department of Health and Human Services, *Growth in Advanced Imaging Paid Under the Medicare Physician Fee Schedule* (OEI-01-06-00260), October 2007; Aunt Minnie, "Imaging Growth Hits the Breaks," Dec. 9, 2010; Geographic Variation in the Utilization of Noninvasive Diagnostic Imaging: National Medicare Data, 1998–2007; Laurence Parker, David C. Levin, Andrea Frangos and Vijay M. Rao; *Self Funding Magazine*, Scott Fuqua, Dec. 6, 2010.
- (5) "Quality Initiatives." *Peer Review in Diagnostic Radiology: Current State and Vision for the Future*. RSNA (2009). Print.
- (6) "A Road Map to a Just Culture: Enhancing the Safety Environment." *FlightSafety.org*. Gain Working Group E, Sept. 2004. Web. Mar. 2012. <http://flightsafety.org/files/just_culture.pdf>.