



Helping Your Technologists, Part 2: Elevating Feedback With Value and Impact

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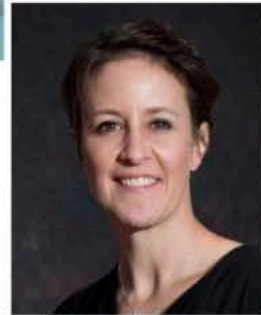
Part 1 of this series, published in the summer 2024 issue of *SBI News*, provided tips for troubleshooting mammographic positioning. Part 2 explores essential strategies for delivering effective image quality assessments, ensuring that feedback is meaningful and well received.

Recently, Hadley and Jacobs conducted an independent unpublished survey of mammography technologists in the United States. The survey revealed that 89% of technologists received routine feedback pertaining to image quality. Of the technologists who received routine image quality feedback, 39% received the feedback both for images of excellent quality and for those of suboptimal quality. An analysis of positive and negative feedback in the workplace by Goller and Späth showed that receiving positive feedback had a favorable impact on subsequent performance, whereas negative feedback did not have an effect.¹ The recent survey of technologists also revealed that technologists prefer to receive feedback via email and/or verbally in a confidential setting, rather than receiving feedback in nonconfidential settings or among their peers.

Although the skills for acquiring quality images are mainly entrusted to modality-specific technologists, the radiologist is ultimately responsible for image quality.² The ACR technical standard states, "The physician performing the official interpretation must be responsible for the quality of the images being reviewed."³ According to the US Food and Drug Administration, "[t]he LIP [lead interpreting physician] is viewed as the individual most responsible for ensuring image quality is continuously maintained by the facility."⁴ Although interpretation and final image quality are the interpreting radiologist's responsibility, the imaging technologist "acts as an agent through observation and communication to obtain pertinent information for the physician to aid in the diagnosis and treatment of the patient."⁵ Elevating skills to continually optimize image quality requires a team effort and is essential for providing a final diagnostic study that is acceptable for interpretation. This article presents potential tools for delivering feedback effectively and aims to minimize friction, enhance receptivity, foster strong team unity, and promote image quality excellence.

Importance of Standardized Positioning Techniques and Protocols

Creating and establishing written protocols for imaging acquisition and quality are essential and can help ensure that breast imaging teams have the same goal in mind. Establishing and implementing



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standardized positioning techniques are crucial when setting expectations for image quality and can help technologists effectively troubleshoot suboptimal images. Using standardized positioning techniques can also increase image reproducibility, contributing to earlier cancer detection. Image quality criteria benchmarks can be met more frequently with the implementation of standardized positioning techniques.⁶ By placing a copy of the protocols in each examination room and at technologists' workstations, radiologists can ensure that protocols are readily accessible during examinations and when preparing for mammographic procedures.

Delivering Image Quality Feedback

Asking a patient to return for additional images when the initial examination was suboptimal can be a considerable inconvenience. Complacency and friction fears are common reasons to offer routine feedback both for images of excellent quality and for images that need improvement. Dr. Kuehn-Hajder (University of Minnesota Physicians) said, "Offering balanced feedback is important in maintaining quality. Too frequent/too negative can backfire. Too infrequent results in complacency."

Establishing clear expectations and engaging in regular discussions about image quality are crucial. Limiting feedback to only a few times per year can often be perceived as punitive or inconsequential by technologists. Providing balanced feedback on a regular basis helps foster a team-oriented atmosphere and upholds high quality standards.

Ensuring that feedback is offered to technologists in a way that reduces friction fears and increases receptivity is key. Feedback that technologists see as valuable and driven by leaders who are genuinely invested in their growth can lead to significant positive outcomes.

- Ask technologists about their preferred methods for receiving both positive feedback and suggestions for improvement.

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- Start with positive acknowledgement, highlighting areas where the technologist excels. This can include areas such as communication skills and patient care in addition to image criteria metrics.
- Be specific with examples of how the change could enhance the image.
- Emphasize the benefit and empower the technologist to see the value in making the adjustments.
- Leave room for dialogue. Framing the feedback as a shared effort to improve the study encourages collaboration. Dr. Daly (Bronson Healthcare, Michigan) suggested, "Start by asking about a specific case: tell me about this patient and what challenges you encountered. Ask them what they think about the study and how they would assess the images; then offer suggestions for improvement."⁷
- Encourage technologists to ask questions or share suggestions when facing challenging patient scenarios, and remind them that their input is welcome.

Create a Lead Technologist Alliance

Time and resources within imaging departments must be strategically allocated, given the continuously growing workloads and often understaffed departments. Lead mammography technologists can play a vital role in maintaining a clinical image quality review program that is educational and beneficial. Clinical image quality review programs maintained and managed by the lead mammography technologist can be an effective way to use resources. Key areas of focus for such programs include the following:

- Clear, written expectations and protocols for image quality criteria
- Adequate education and training of the designated lead technologist:
 - Solid understanding of standardized positioning techniques and correlative anatomy to effectively troubleshoot imaging
 - Knowledge and understanding of image criteria and the radiologist's expectations
 - Core understanding of electronic reporting and artificial intelligence (AI) software system reporting, if applicable
 - Ability to provide valuable feedback and train/educate others
- A means for the lead technologist and lead interpreting physician to clearly communicate and share information in a simple, effective way on a routine basis

- A process for routine image review and time for the lead technologist to complete the task
- Goals or desirable benchmarks set for individuals and for teams to promote quality in an engaging way
- Time set aside each week, month, or quarter (per facility-established guidelines) for the lead technologist and radiologist to discuss image quality reports, trends in quality, and opportunities for improvement

Using Electronic Platforms for Feedback and Image Analysis

AI is a valuable option for objective image review and reporting of quality. AI removes the subjectivity from the image review process, potentially reducing friction fears and providing an optimized review of overall image quality over a period of time. This option offers a stronger understanding of the team's overall image quality by reviewing every image rather than a select number of random cases from a specific time period. AI can also provide real-time analysis and troubleshooting assistance. Ensuring that a technologist logs in to the AI software system regularly is essential for the tool to be optimally useful. In addition to direct radiologist feedback, AI can deliver feedback through email or a shared system integrated with the electronic medical record platform. Using the reporting features within an AI platform allows leaders to effectively review and track trends in image quality. This data-driven approach provides insights into areas where image quality might be declining or improving, enabling a more focused and proactive strategy to address trends. The reporting function can help streamline troubleshooting efforts by pinpointing common challenges, thus enhancing the overall performance of the AI system and the teams using it. Using AI to boost team engagement can be highly effective. By leveraging AI-driven insights, imaging teams can focus on one specific quality metric and work collaboratively to improve in that area. Turning this into a gamified challenge in which teams compete to achieve the best results can further drive engagement, motivation, and collaboration. Offering incentives or recognition on a quarterly basis encourages continuous improvement and teamwork. This approach can help foster a positive, goal-oriented work environment.

Using electronic systems already in place, such as electronic medical records or reporting systems, can be a simple yet highly effective method for providing image quality feedback. These platforms often have built-in features that allow for seamless communication, enabling radiologists or leaders to offer real-time comments, recognition, and suggestions regarding image quality directly to technologists. Collaborating with system specialists often allows these tools to be customized for optimal efficiency. This is a simple way to foster a culture of continuous improvement through real-time, actionable feedback while using existing resources and minimizing the need for additional software.

Although image quality is ultimately the responsibility of the interpreting radiologist, achieving high-quality images begins with the initial image acquired by the technologist. A team approach incorporating regular feedback for image quality is essential for maintaining a high-performing breast imaging team.

Special thanks to the following individuals for their valuable comments and research contributions to this article: Dr. Caroline Daly, Bronson Healthcare, Michigan; Dr. Bryan Donald, Midwest Radiology, Minnesota; Dr. Jessica Kuehn-Hajder, University of Minnesota Physicians; Dr. Laurie R. Margolies, Icahn School of Medicine at Mount Sinai, New York; Dr. Anusuya Mokashi, Petaluma Valley Hospital, California; Dr. Georgia Spear, Endeavor Health/NorthShore University Health System, Illinois; and Suzanne Watring, BS, (RT)(R)(M), Endeavor Health/NorthShore University Health System.

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