

Repeats, Rejects and Recalls: How Many is Too Many?

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Recently, I was asked to work in a breast imaging facility and conduct an on-site positioning workshop. The radiologist said that the facility had a high level of “TCBs,” and he worried about the increased, unnecessary additional radiation dose to the patients. I was embarrassed as I had never heard that acronym used and was not sure what it stood for. It meant: Technical Call Backs. Ahh...no wonder...we rarely have TCBs. I spent a week at the facility. A year later, he emailed me and said that they had reduced TCBs by 50%! Unfortunately, the data were not published.

I was surprised when several technologists at another breast center informed me that exaggerated craniocaudal to the lateral (XCCL) views were performed on approximately one third of their patients. Their radiologist wanted them. This was not just at one site, but at many: too many extra views on patients who did not require them. The standard screening mammogram had become a six or eight view exam. This was odd as all repeat/reject rates were well within compliance at these facilities.

Many technologists are told that they **MUST** repeat every image that does not show the inframammary fold (IMF) or those that show skin/fat folds. So they obtain the repeat images and are still in “compliance.” Technologists have many options to choose from when stating the “cause” of the repeat/reject; one can unknowingly skew the statistics based on several options selected prior to the exam being performed. The technologists are also unnecessarily exposing the patients to additional radiation and anxiety.

Unfortunately, very little data have been published on these issues. One of the last studies predates the implementation of full field digital mammography (FFDM) and digital breast tomosynthesis (DBT). In 1993, Bassett et al. evaluated 2000 film-screen (FS) mammograms and created a standard for excellence in image quality (1). Interestingly, none of the criteria were met 100% of the time. However, after the technologist received “standardized” positioning training, image quality improved by 68% (1). Still, overall image quality standards were met only 64% of the time (1). Currently, there seems to be an expectation from many radiologists that all images should be of American College of Radiology (ACR) quality every time, which is quite an unreal expectation, given that most of us search for weeks to find the “perfect” fatty and dense breasts to submit for accreditation.

There have been marked changes and technologies since the study by Bassett et al. was published (1). Image receptors and face shields have increased in size. The imaging format is completely different. These factors often provide a challenge for technologists and radiologists. 



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Common Causes and Solutions for Repeat and Reject Images and Unnecessary Additional Views

- Skin/fat folds/attenuation of the beam (bright spots in the skin) are indigenous to the digital imaging process. If the skin or fat fold obscures visualization of an area of concern and the skin or fat fold cannot be windowed and leveled, the view should be repeated for better visualization. However, skin and fat folds are present on the majority of mediolateral oblique (MLO) views and should not be repeated unnecessarily.
- The XCCL view should not be a part of a standard screening mammogram unless:
 1. It is a baseline mammogram and prominent glandular tissue is missing on the mammogram; OR
 2. An area of concern is seen in the lateral posterior breast tissue.

On subsequent screening exams, if breast tissue is visualized back to the retromammary fat space, an XCCL view is unnecessary. Cardenosa noted that XCCL views should be needed in about 10% of cases (2). If your technologists are producing XCCL views more frequently, perhaps a retrospective study should be undertaken to see how many cancers were found on the XCCL views. No such study has ever been published regarding this topic, and a study would be of value to our profession.
- Motion is a common problem with digital technology. Often, it is difficult for the technologists to detect motion due to the lower resolution of their work monitors and bright lighting in the exam room. Giving breathing instructions such as, “stop breathing” for FFDM and “breathe very slowly” for DBT exposures can help to decrease motion artifacts.
- Failure to include the IMF is a common complaint of many radiologists, but the IMF is often a difficult part of the patient’s anatomy to include. If there is a skin fold in the IMF, the technologist can learn to overcome this most of the time, but this problem is also indigenous to FFDM.
- Poor positioning is a common problem due to the lack of standardized positioning techniques. Newer technologists find it even more confusing as the more experienced technologists position differently. This can confuse technologists coming into the field. Standardized positioning training facilitates consistent and ergonomically sound techniques that increase efficiency and productivity while creating reproducible comparisons from year to year. Training also reduces workman’s compensation claims and keeps the technologists healthy and energetic throughout their careers. ❖

REFERENCES

1. Bassett LW, Hirbawl IA, DeBruhl N, Hayes MK. Mammographic positioning: evaluation from the view box. *Radiology* 1993;188:803-806.
2. Cardenosa G. *Breast Imaging Companion (Third Edition)*. Wolters Kluwer, Alphen aan den Rijn, The Netherlands, 2007.

