

CTB-00595 Rev 003

Date: November 10, 2023

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Product: Selenia Dimensions/
3Dimensions/Affirm Prone

Subsystem: Quality Control

Subject: Explanation of Repeated and Rejected Views
on Selenia Dimensions, 3Dimensions, and Affirm Prone Biopsy
Systems

Revision History

Rev 003 – Added *X-Ray Equipment Failure* to Repeated Images section.

Rev 002 - Added Discussion and Summary sections.

Purpose

The purpose of this Customer Technical Bulletin is to provide information on the differences between Repeated Images and Rejected Images determined in Mammography Quality Control (QC) for Selenia Dimensions, 3Dimensions, and Affirm Prone Biopsy Systems.

This document explains how repeat and reject rates are calculated separately on the Selenia Dimensions/3Dimensions and Affirm Prone systems. For the analysis, both repeat and reject rates should be evaluated.

Scope

This information applies to Selenia Dimensions, 3Dimensions systems and Affirm Prone Biopsy Systems.

Discussion

The objective of repeat/reject analysis is to determine the cause of repeated or rejected mammograms that lead to additional exposure to the patient.

Customer Technical Bulletin (cont.)

Resolution

The following is information on how Selenia Dimensions and 3Dimensions systems are programmed to report on Repeated/Rejected Views.

Rejected Images

The system allows the following reasons to reject an image:

- Positioning
- Patient Motion
- Detector Underexposure (excessively noisy images)
- Improper Detector Exposure (saturation)
- Artifacts
- Incorrect Patient ID
- X-ray Equipment Failure
- Software Failure
- Blank Image
- Wire Localization
- Aborted AEC Exposure

When counting rejected images only images rejected locally on the acquisition workstation are counted as rejected images.

The percentage of Rejects is calculated as follows:

$$\% \text{ of Rejects} = \frac{\text{Total Number of Rejected Images For Reason}}{\text{Total Number of Rejects For All Reasons}} * 100$$

Customer Technical Bulletin (cont.)

Repeated Images

The system allows the user to select from the following reasons to repeat an image:

- Patient Habitus
- Positioning
- Patient Motion
- Detector Underexposure (excessively noisy images)
- Improper Detector Exposure (saturation)
- Artifacts
- Incorrect Patient ID
- X-ray Equipment Failure (any system failure during exposure which results in automatic rejection and deletion of the view, such as premature x-ray switch release)
- Software Failure

When counting Repeated images, only images that are part of screening exams that contain two identical accepted patient views (for example, two “R CC”s) are counted towards the Repeated views, provided the Repeat Reason is other than *Patient Habitus* or *Wire Localization*.

The percentage of Repeats is calculated as follows:

$$\% \text{ of Repeats} = \frac{\text{Total Number of Repeated Images For Reason}}{\text{Total Number of Repeats For All Reasons}} * 100 \text{ (These totals exclude } \textit{Patient Habitus} \text{ and } \textit{Wire Localization} \text{ reasons)}$$

Summary

Images that remain in the rejected state in the application will not be counted as a “repeated” image and will only be counted as a “rejected” image. The system only counts two identical views that have both been accepted as repeated images.