



Parascript® AccuDetect® Computer-Aided Detection (CAD) software helps radiologists read digital mammograms. Using several complementary algorithms and sophisticated voting methods to achieve high sensitivity and low false-positive rates, AccuDetect identifies areas suspicious for breast cancer for further review.

RESULTS*

A clinical reader study conducted in 2012 by a medical imaging contract research organization (CRO) proved that the use of AccuDetect led to a significant increase in effectiveness for a group of 12 radiologists reading digital mammograms. The average increase in sensitivity with the assistance of AccuDetect was 1.5%, which translates into 18.8% increase in the detection of cancers (that were initially missed and only recognized with CAD assistance). Average increase in specificity due to assistance of AccuDetect CAD was 4.9%.

AccuDetect improves the performance of radiologists in discriminating between malignant and nonmalignant cases.

Performance

OUTSTANDING STANDALONE PERFORMANCE*

AccuDetect's sophisticated CAD algorithms support early, more accurate detection:

- 91% sensitivity with 1.6 false positives per four-view study.
- 45% specificity (percentage of normal cases where CAD did not show any marks).
- Delivers very high performance on dense/extremely dense breasts – 85% sensitivity, 43% specificity, 1.5 false positives per four-view study.
- Delivers high performance on dense breasts.**

DETECTION OF MICROCALCIFICATIONS

- Detects calcification clusters consisting of several calcifications with size between 0.1mm and 0.8mm.
- Results for calcifications: 90% sensitivity with 0.75 false positives per four-view study.

DETECTION OF SOFT TISSUE DENSITIES

- Detects soft tissue densities with a diameter between 5mm and 50mm.
- Results for soft tissue densities: 83.3% sensitivity with 0.95 false positives per four-view study.

* See AccuDetect device labeling for complete clinical data

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** The differences in both sensitivity and specificity between AccuDetect CAD results for dense/extremely dense breasts and fatty/scattered fibroglandular breasts are statistically insignificant.

Features

PRECISE CAD MARKERS

- Highlight suspicious lesions without obscuring regions of interest.
- Mark densities with ovals and microcalcifications with rectangles that surround the region of interest.
- Correspond to the size of suspicious calcifications and densities.
- Toggle on/off (enabled by majority of review workstations).

OPEN SYSTEM ARCHITECTURE

- Supports direct radiography (DR) Full Field Digital Mammography (FFDM) and computed radiography (CR) mammography systems. The software adapts to the specific characteristics of each FFDM detector to maximize performance.
- Integrates with multiple clinical workflows including acquisition and review workstations, picture archiving and communication systems (PACS) and other DICOM enabled devices.

SUPERIOR CAD WORKFLOW PERFORMANCE

- Priority queuing of preferred devices for important or urgent studies.
- Fast processing time - less than 15 seconds per image.
- CAD server supports up to four FFDM systems.

COMPATIBILITY

- AccuDetect is compatible with direct radiography (DR) and computed radiography (CR) mammography systems from leading digital imaging equipment manufacturers including: Agfa Healthcare, Carestream, FujiFilm, GE Healthcare, Hologic, IMS, Philips Healthcare, Planmed, and Siemens Medical Solutions. AccuDetect is CE marked and available in the U.S. for investigational purposes only.

RECOMMENDED COMPUTER

Processor

4 Core i7-3770, 3.5GHz

RAM

8 GB

Hard Drive

250GB SATA, 7200 RPM Hard Drive

Network

1 GB Ethernet card

OS

Windows 7 Professional, 64-bit

Hyper Threading

Enabled

CONNECTIVITY

Network Interface, Ethernet Interface (RJ45 Connector)

UNIVERSAL DICOM CONNECTIVITY

- Supports DICOM Mammography CAD Structured Report
- Sends results to multiple destinations
- Automatic send/receive of results
- 10/100/1000 Base T Ethernet
- Remotely accessible

