

# Pristina Serena 3D

for Senographe Pristina



\*Also referenced as SenoAxys

GE imagination at work

Pristina Serena is the Stereotactic Biopsy upgrade option for the Senographe Pristina full field digital mammography system. Pristina Serena is an add-on option designed to simply slide onto the Senographe Pristina gantry.

This system can provide guidance to perform fine needle aspiration, core biopsy, vacuum assisted biopsy or hook wire placement procedures in upright or recumbent positions.

Pristina Serena 3D features a universal grid, that makes lesions conspicuity the same in biopsy as in routine images. Image performance in biopsy is equivalent to 2D/3D screening and diagnostic imaging as Serena 3D reuses the same image chain including our iterative algorithm ASIR

## Ergonomics

**Pristina Serena adapts to the patient, not the patient to the system.**

A Flexible Biopsy Device orientation (horizontal and vertical), combined with gantry and/or patient position provide a large flexibility in lesion approach.

- Thin/thick compressed breast as well as patients with different conditions (wheelchair, kyphotic, ...) can be biopsied in both approaches
- Tube Parking position at  $-33^\circ$  and  $+33^\circ$  allows easy access to the breast during the biopsy procedure
- The tube park position increases visibility of the workspace. It provides complete access during the biopsy procedure and reduces physical strain of the radiologist
- With Pristina Biopsy, a Biopsy procedure can be performed in  $<15\text{min}$  \*
- The near silence of Pristina and its biopsy positioner provides a calm environment to the patient
- Lesions located up to 1cm above the paddle can be biopsied
- The ability to easily change the biopsy device orientation (from vertical to horizontal) without decompressing the patient may accelerate the exam
- Remote angulation minimizes technologist's travel during procedure, reducing exam time
- The short distance ( $<5\text{ mm}$ ) between detector and the edge of the breast support facilitate biopsies of Lesions located close to chest wall
- A Laser light is included to serve as a guidance aid for an accurate anesthesia injection
- Touchscreen display conceived to work intuitively in the 3 axis for targeting (X,Y,Z). It can be placed in both sides of the system to adapt the working position.

\* As determined in GE internal workflow study

## Technical information

**Pristina Biopsy is designed with additional advanced biopsy applications in mind**

### Initial positioning rotation angle

- Any angle between  $-90^\circ$  and  $+90^\circ$

### System angulation

- 3D acquisition angulation is  $25^\circ$
- $-15^\circ$  and  $+15^\circ$  automatic stop for 2D stereotaxy angles

### Exposure parameters selection (track, filter, kV, mAs)

- Automatic or Manual

### Field of View

- 2 choices of FoV for scout and targeting,  $12\times 11\text{cm}$  and  $15\times 18\text{ cm}$  representing up to the triple increase in field of view\*\*, designed for easy patient positioning. A larger FOV potentially reduces exam time by reducing retakes due to repositioning
- A smart collimation allows to reduce unnecessary radiation to the patient once the lesion is targeted

## Serena 3D User Interface

### Biopsy Device Management

- Ability to select the full configuration of the biopsy device
  - A device database is available for common used devices
  - Biopsy preferences configurable to predefine user's frequent used devices and needles

### Acquisition

- mAs correction with tube angulations to compensate breast thickness change
- In 3D, positioning check and lesion targeting can be done on the same volume. This allows faster acquisition and reduction of dose (at least 60% for an average breast) compared to 2D biopsy that requires acquisition of a triplet (one scout and a stereo pair)
- Possibility to switch from 3D to 2D biopsy imaging at any time of the procedure

### Image display

- 3D volume is displayed for targeting. Planes can be reconstructed 1mm or 0.5mm
- Possibility to magnify, invert the image, modify window width or window level
- Possible to re-open previous Biopsy images and previous targets

### Easy Targeting Interface

- Easy identification of the lesion within the volume to assist accurate targeting

### Pre/Post fire Checks

- Display on the same screen of pre-fire and post-fire images

### Target management

- Multiple targets can be defined

### DICOM Connectivity

- Leverages Senographe Pristina DICOM platform

\*\* Compared to Essential Biopsy and DS Stereotix

## Needle Positioner

### Needle approach

- Vertical or horizontal approach for easy access to breast lesions

### Accuracy

- The Pristina Serena accuracy is +/- 2 mm on each axis (X, Y and Z independently)

### Programmable needle length

- Up to 180 mm

### Image format

- Scout view: 120x110mm or 150x180mm
- Stereotaxy views: 110x 90 mm

### Biopsy window

- Size: 50 x 40 mm

Pristina Biopsy is fully compatible with biopsy devices commonly available in the market:

- Mammotome Revolve
- Mammotome ST
- Encor Enspire
- Eviva
- Bard Magnum
- Bard Vacora

Pristina Biopsy is configurable to work with up to 5 different Senographe Pristina gantries.

## Pristina Biopsy Configuration

### Standard Configuration

- Biopsy positioner and Touchscreen Display
- Calibration kit
- Vertical Support (Bard Magnum / Vacora)
- Compression paddle Arm (left arm)
- Set of biopsy plates
- 8 Vertical Needle guide supports
- Laser guide
- Table Stand

### Options

- Ultra DBI table compatible
- Horizontal approach kit including:
  - Horizontal Support (Bard Magnum / Vacora / FNA / Hook Wire)
  - Compression paddle Right Arm
  - Set of biopsy plates (two without window)
  - 4 Horizontal Needle guide supports
- Breast Spacer to increase the thickness of the breast for Horizontal approach
- Biopsy device adaptors for compatible devices and set of needle guide support
- A dedicated Sample Imaging Mode to image the tissue samples during the exam<sup>1</sup>

### Compatible needle guides

- Sterilizable metal needle guides with retaining catch
- Sterilizable metal needle guides without retaining catch
- Sterile plastic needle guides
- Sterile plastic needle guides with slot for wire positioning

### Printing

- Available in manual mode

### System Weight

- < 12kg

<sup>1</sup> Availability may depend on your country regulation

**Pristina Biopsy it is not available in all countries.  
Please refer to your GE Healthcare sales representative.**

**Data subject to change.**

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