ONCOLOGY OUTCOMES REPORT 2018

EVANGELICAL™
COMMUNITY HOSPITAL

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looking differently at breast cancer screening

Screening mammography, the mainstay for breast cancer detection, has known limitations in women with dense breast tissue and these women have a higher risk of breast cancer. Clinical evidence demonstrates that for women with dense breast tissue, supplementing mammograms with Automated Breast Ultrasound (ABUS) can substantially increase breast cancer detection.

Evangelical Community Hospital was an early adopter of ABUS and has been adding this study as a complement to screening mammography for several years. Evangelical's Cancer Committee recently recommended a quality initiative to invest in the newest technology available for automated, whole breast screening. To that end, the Thyra M. Humphrey's Center for Breast Health acquired the GE Invenia ABUS 2.0, a new machine that utilizes improved technology to further enhance detection and improve the screening process.

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GE's Invenia ABUS 2.0 is FDA-approved and specially designed for automated screening. In addition to increased detection, this leading edge equipment increases reproducibility, is easier to operate, and offers more patient and operator comfort. The Invenia also uses a software-based graphics processor, that provides a repeatable and operator-independent acquisition method to achieve consistent, high-quality results.

Using advanced algorithms to automate the imaging process, the Invenia provides remarkable image quality and reproducibility from user to user, including:

- tissue equalization
- nipple shadow compensation
- breast border detection
- chest wall detection

These are all designed to eliminate the distractions and focus the radiologist's attention on the most important data—the anatomy.

The Invenia viewer also provides the coronal view, which acts as a roadmap for evaluating the entire breast. This global perspective offers better visualization of architectural distortions and multifocal disease. Reconstructed 2 mm thick coronal slices display constant orientation and location from the nipple, making it easy to evaluate the breast from the skin line to the chest wall. Correlations with other projections and planes are easily achieved.

In addition to improved technology, the Invenia offers more comfort for patients. The gentle shape of the transducer follows the natural contour of the breast, providing patient comfort, even compression, and full contact, and helps to ensure comprehensive coverage. Since no two women are identical, exams can be customized with programmable scan protocols, adjustable scan depths, and compression levels. The operator can also shorten scan time once breast tissue acquisition is complete.

Mammography may miss more than **1/3 of cancers** in women with dense breasts. This was the motivating factor in the decision to upgrade our automated breast ultrasound equipment; the investment may allow an **improvement in breast cancer detection by 37.5%** over mammography alone.

In compliance with The Commission on Cancer's Standard. 1.12: Standard 4.8 Quality Improvement report