

How can we meet her expectations?

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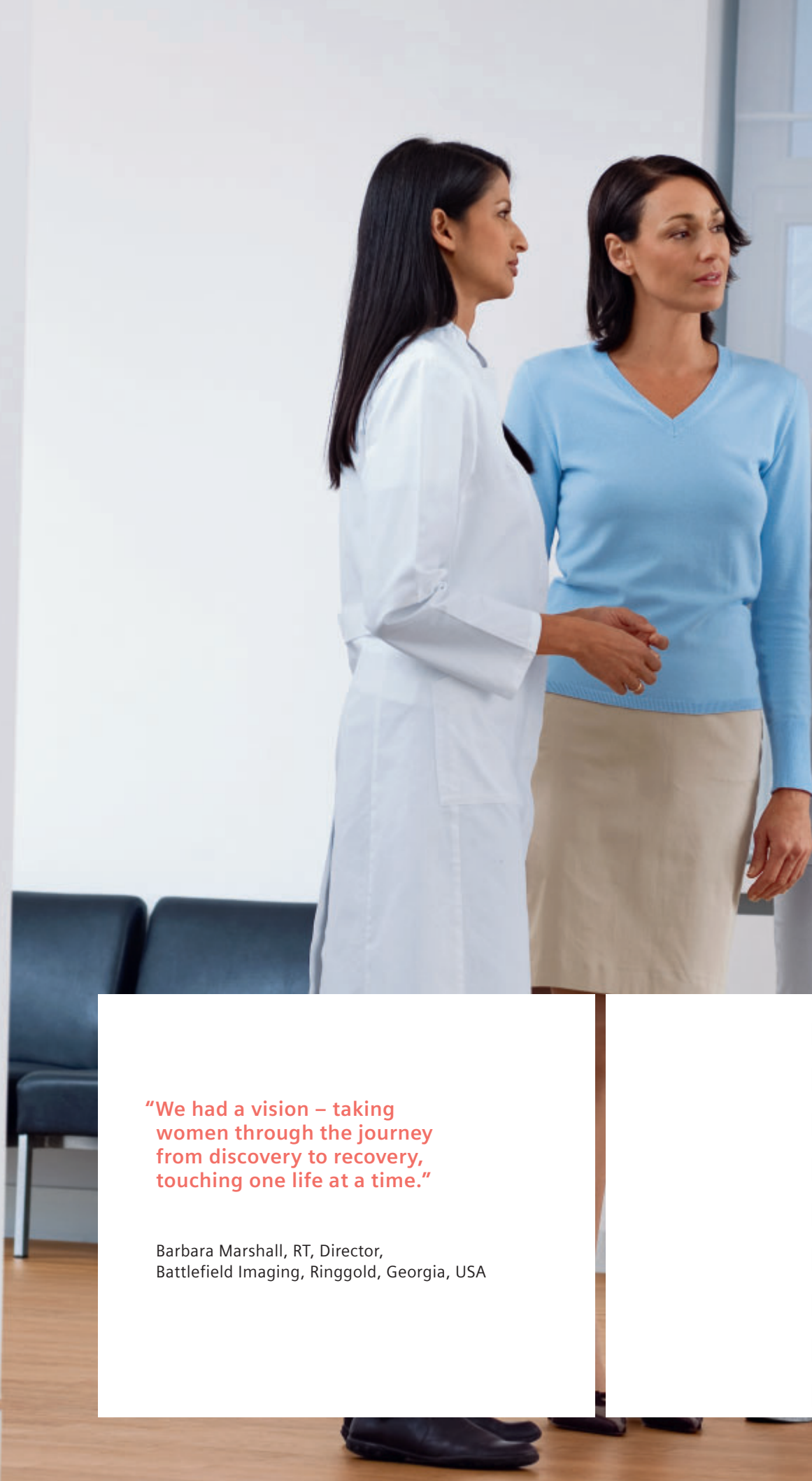


## Breast Care Solutions

Answers for life.

**SIEMENS**  
medical

Innovative Breast Care Solutions. For women. For health. For life.



**“We had a vision – taking women through the journey from discovery to recovery, touching one life at a time.”**

Barbara Marshall, RT, Director,  
Battlefield Imaging, Ringgold, Georgia, USA

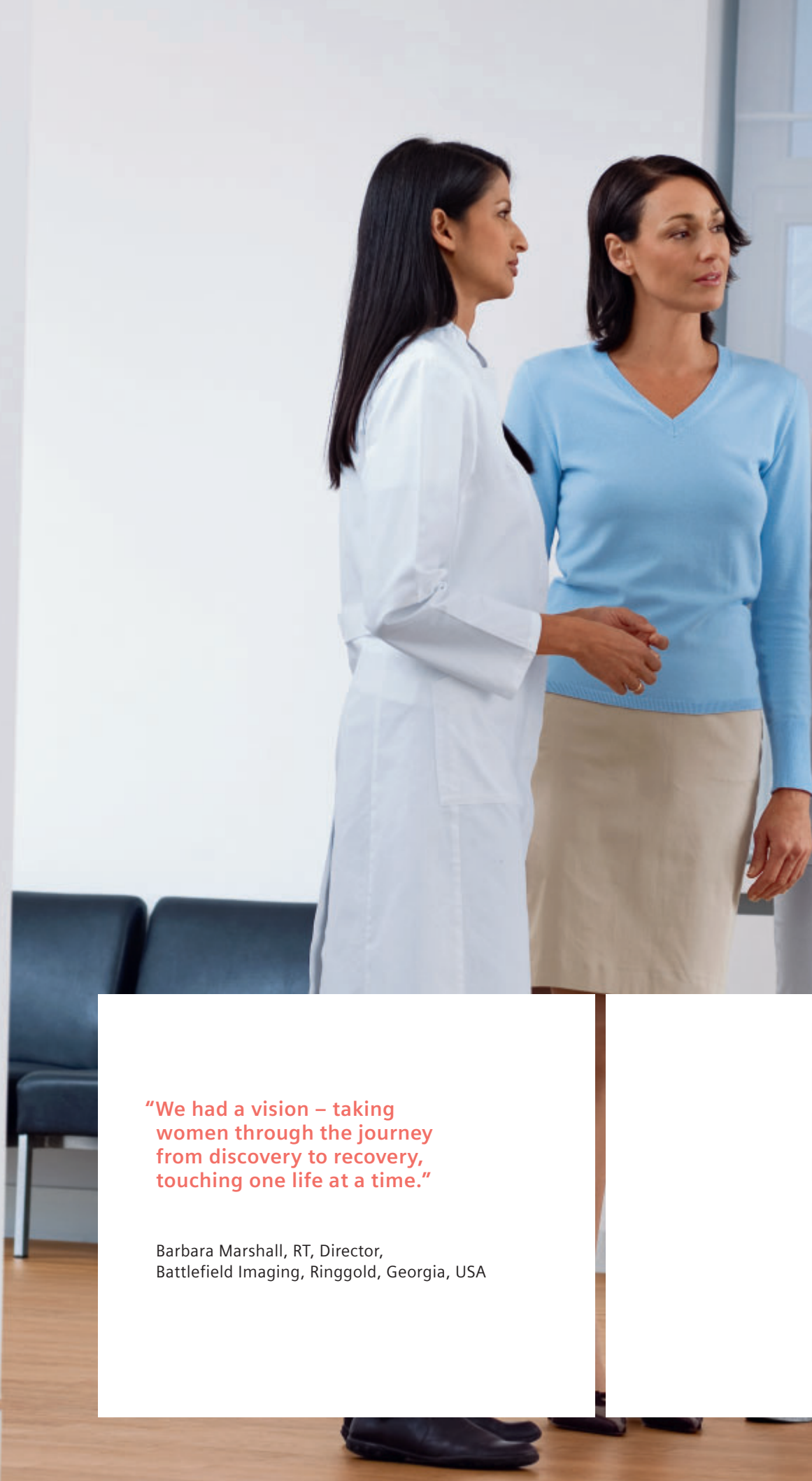


## Breast Care Solutions For women. For health. For life.

As your partner in patient care, Siemens' comprehensive approach to women's health is helping to improve the standard of healthcare worldwide – helping detect, diagnose, and treat disease earlier, faster, and with greater precision. If there is one thing we in the healthcare field have learned, it's that every breast cancer patient is different, and, for that reason, differing imaging modalities, laboratory diagnostics, and therapy systems may help you to better detect, track, and treat an individual's disease. With that in mind, Siemens offers a range of breast care solutions, all designed to help you find the answers you seek, take the best possible course of action, and, ultimately, follow your patient through to recovery.

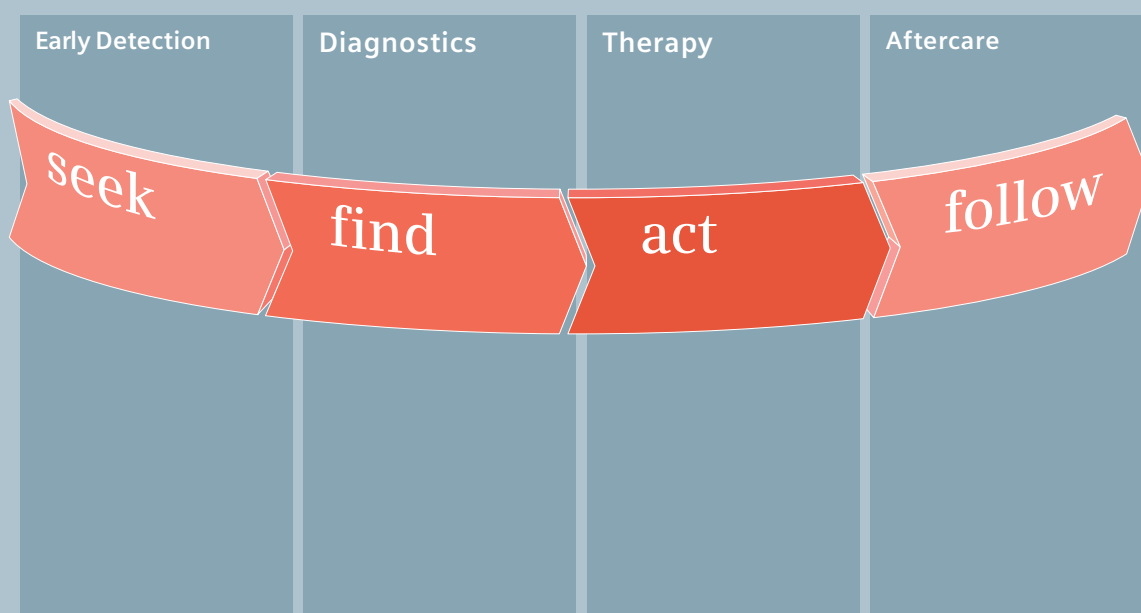


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**For women. For health. For life. Breast Care Solutions from Siemens.** Siemens' comprehensive solutions follow the complete continuum of breast care – from screening to diagnosis, therapy, and aftercare. And our solutions in healthcare IT support the exchange of data for making informed decisions.

#### Benefit from an all-around solution

We have created our solutions with your patients in mind, to help you offer the best quality of care. At the same time, we took economic and operational requirements into account as well. When addressing these challenges, one major feature comes to the forefront – **workflow**. This includes, for example, ease of use for shorter examination times, which results in increased patient comfort and more time for patient care. Or a seamless integration of your medical equipment throughout your clinical institution as well as with referring physicians and other medical experts for a fast and smooth exchange of important patient information – to enable informed and confident diagnostic and therapeutic decisions.

#### Supporting you along the way

Siemens is your partner throughout the entire life span of your system. We support you with innovative healthcare **IT solutions**, remote system monitoring and proactive maintenance services as well as hands-on trainings and further education – and much more.

#### *syngo*. It's all about you.

*syngo*<sup>®</sup>, our common user interface for the diagnostic and therapeutic cycles, knows how you work. What you need. What's most important. Fast, easy, and intuitive, *syngo* brings together all of the solutions critical to you – and your patients. Uniquely role-based for your workflow, *syngo* completely integrates your day, your department and beyond. This leads to a whole new level of clinical excellence and a partnership you can grow with. It's the beginning of a virtualized, **"always on, anywhere"** world of healthcare. The time to *syngo* is now.

#### Optimizing your system's life cycle value

Performance, productivity, patient satisfaction: You want to get the most out of your investment over its entire life cycle. That's our goal too. That's why we offer our customer care program called **Life**, based on three decisive factors: Skills – with EDUCATION Services we keep your knowledge up to date. Productivity – with UPTIME Services we optimize the availability of your systems. Technology – with UPGRADE Services we keep your system's performance at the cutting edge – both now and in the future. We take care of your system, because you have something more important to take care of – your patients.

#### Capitalize on a new dimension in system support

**Siemens Remote Service (SRS)** is the efficient and comprehensive infrastructure for the complete spectrum of medical equipment-related remote services. Services that formerly required onsite visits are now available via data transfer. This includes rapid error identification as well as immediate remote repair. But that's not all. By proactively monitoring your systems, we can detect parameter deviations before problems occur.

For more detailed information on our comprehensive range of Breast Care Solutions, please visit [www.usa.siemens.com/breastcare](http://www.usa.siemens.com/breastcare)

# Detecting the signs of breast cancer – early

Early detection. As clinicians, you know early detection offers your breast cancer patients the best chance of cure. Yet, not every patient case presents the same way. In order to take personalized medicine to the next level, you need accurate, detailed clinical information – the kind of information that is making a difference in the lives of patients around the world. Siemens Breast Care Solutions offer that level of information. From general population screening to metastatic breast cancer, Siemens solutions provide you with the clinical confidence you need to detect and treat disease – no matter what the stage.

## Early Detection



seek

**Seek.** Whatever the individual situation, our innovations make screening and early diagnosis more reliable, efficient, and comfortable than ever before – enabling early and therefore more effective therapeutic intervention.

**“Up to 70%\* of our patients reported that MAMMOMAT *Novation*<sup>DR</sup> is more comfortable than other systems.”**

Dr. John F. Nelson, Medical Director of Battlefield Imaging, Ringgold, Georgia, USA

**“I found CAD to be especially valuable in flagging small, early-stage lesions, and lesions in younger women. These are the ones that are most likely to be overlooked and where CAD makes the most difference.”**

Tommy E. Cupples, MD, Private Practice Radiologist, ImageCare, Columbia, South Carolina, USA



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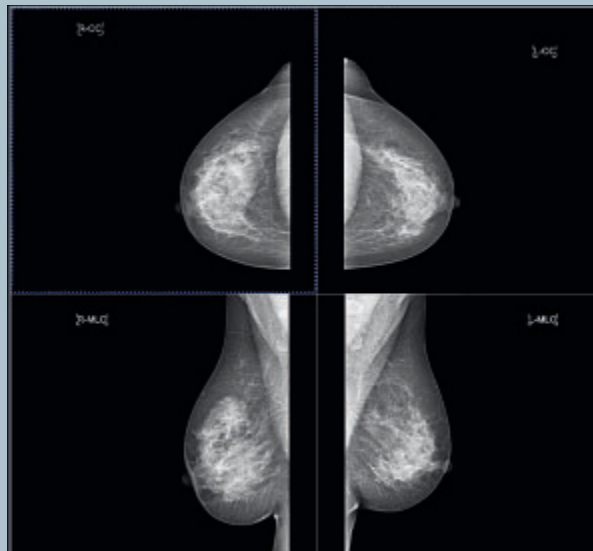
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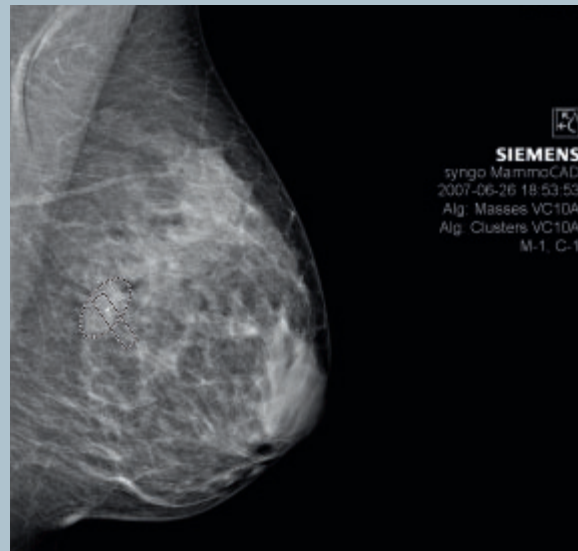
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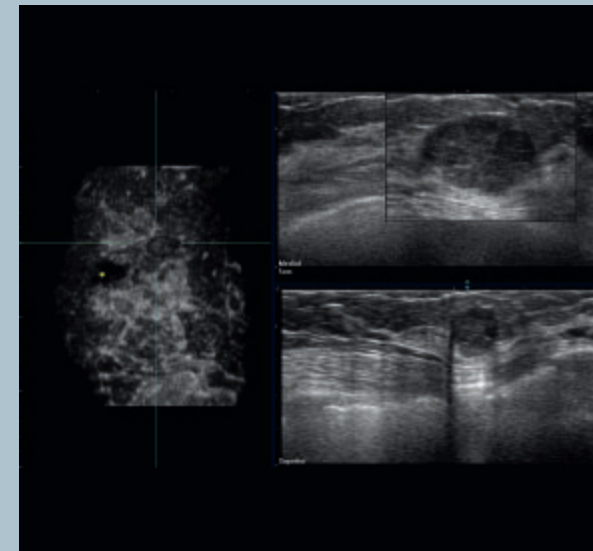




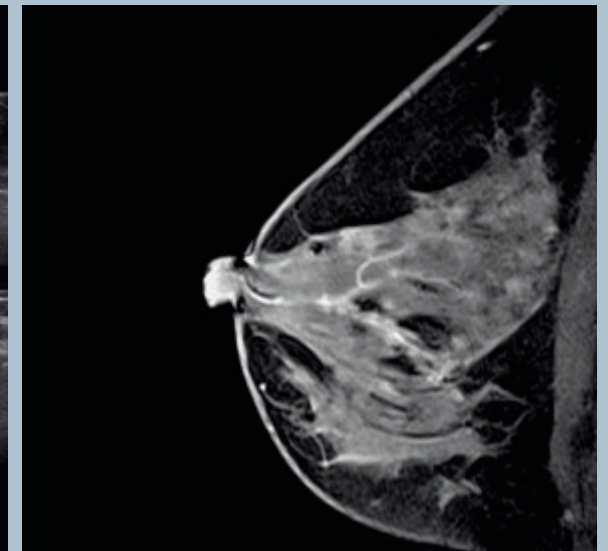
Digital mammography: streamlined screening workflow<sup>1</sup>



syngo MammCAD marking a suspicious lesion for further review – a mass and a cluster of microcalcifications



This biopsy proven breast cancer is clearly visualized in this 3D Data set. The Coronal view is of significance as it demonstrates the lesion in relationship to the nipple and surrounding breast tissue<sup>2</sup>



syngo VIEWS: image showing a left sagittal breast and the ductal structure with ductal carcinoma in situ pattern along the duct<sup>3</sup>

### Proven efficiency for routine screening – with Mammography

Many women are anxious about having a mammogram. This is why it is a primary objective to make mammography screenings more comfortable by: slowing down the speed of the compression plate and automatically stopping it at the point of optimal compression for maximum image quality; offering the lowest possible dose of radiation, while providing excellent image quality; reducing waiting times for your patients before and during an examination thanks to an efficient workflow; and making patients feel more comfortable with an appealing system design. In short: patient comfort may be increased with a solution like our **MAMMOMAT® Novation** – offering functions such as Opdose®, SoftSpeed, Opcomp® or a direct-to-digital aSe detector.

### Reliable detection of abnormalities – with CAD

In the process of image interpretation, it is paramount to detect even the most subtle lesions, including clustered microcalcifications, spiculated and non-spiculated masses as well as architectural distortions. **Computer-aided detection (CAD)** is a widely accepted clinical tool serving as a “second reader,” assisting clinicians by drawing

their attention to suspicious areas in mammograms that require further review. With its ever-increasing accuracy, CAD has become an integral part of the digital mammography workflow, assisting you in the detection of cancer in its earliest and most easily treatable stage. And with the newest version of *syngo MammCAD\*\**, up to 40 percent\* of normal cases show no false positive CAD marks, saving the clinician valuable interpretation time during the second read phase.

### Clear analysis of dense breast tissue – with Ultrasound

Another challenge in breast screening is the imaging of dense breast tissue. According to the *New England Journal of Medicine*, women with dense breasts have an increased risk for breast cancer. Using ultrasound as an adjunct to mammography may increase the detection of abnormalities that may not have been visualized using other diagnostic procedures. Unlike the conventional ultrasound acquisition technique, where the user moves a transducer over the breast, clinicians can now utilize **Automated Breast Scanning (ABS)**, which is a single-sweep, automated acquisition technique that produces standardized, reproducible 3D ultrasound images for improved diagnostic confidence,

\* Results may vary. Data on file.  
\*\* Not yet available for sale in the US

especially in women with dense breast tissue. In addition, **Advanced SieClear™ spatial compounding** with Dynamic TCE™ contrast enhancement technology enhances the detection sensitivity of ultrasound.

### Clarification of eventualities – with Magnetic Resonance

There are more patients with screening or early diagnosis challenges such as patients with breast implants and patients who are considered high-risk for breast cancer based on their genetic predispositions. In such cases, a solution is needed that provides high accuracy in differentiating soft tissues; a solution that can also be used for biopsies, and that supports real-time analysis data as well as interventional procedure planning. All the magnetic resonance systems from our **MAGNETOM®** family, equipped with our **syngo VIEWS** (Volume Imaging with Enhanced Water Signal) and powered by **Tim®** (Total imaging matrix), offer that – and much more, such as pristine image quality for excellent imaging and increased diagnostic confidence. With iPAT acceleration in all directions, Tim delivers accelerated acquisition speed – while still providing the high spatial resolution needed for breast MR diagnoses.

Siemens **syngo BRACE** supports breast motion correction directly at the scanner for higher accuracy, especially for small, multifocal lesions. Our unique **syngo Chorus MR** helps ease and improve the whole examination from beginning to end. Whether it is scan planning, image archiving, distribution or billing, *syngo Chorus MR* shortens and simplifies the different steps for both the patient and medical expert. Plus, by supporting intelligent extraction of sequence protocols from images acquired worldwide with **MAGNETOM** systems, the same parameters can be used again for subsequent scans.

<sup>1</sup> Courtesy of Prof. Dr. Uhlenbrock & Partner, Dortmund, Germany  
<sup>2</sup> Courtesy of André-Robert Grivegne, Institut Jules Bordet, Brussels, Belgium, using a U-Systems, Inc. SomoVu™ Automated Breast Ultrasound System, distributed by Siemens  
<sup>3</sup> Courtesy of Cardinal MRI Center San Juan, Manila, Philippines

# Diagnosing disease patterns – precisely

What do you need to make a precise diagnosis? The best possible information delivered in the most efficient way possible. If, after an initial exam, abnormalities, lesions or even a tumor is found, your patient will need further evaluation. The quality of the anatomical and functional information you obtain at this point can play a major role in your evaluation and characterization of the disease, and thus, how you recommend treating it. Siemens full line of imaging modalities – mammography, ultrasound, molecular imaging, magnetic resonance, and computed tomography – is the key to unlocking the answers you need, and thus recommending the best possible care for your patients.

## Diagnostics

### find

**Find.** Siemens Breast Care Solutions provide a broader basis for more reliable decision-making. With our complete portfolio of imaging modalities and clinical procedures, abnormalities can be quickly and easily detected – even difficult-to-define disease patterns.

**“What’s novel about Symbia TruePoint SPECT•CT is that you perform two exams in the same sitting – we can acquire the CT scan right after the SPECT and fuse the image. The result is more precise localization of the node. Here, we call it ‘SPECT-ACULAR-CT.’”**

Homer Macapinlac, MD, Professor and Chairman of Nuclear Imaging, MD Anderson Cancer Center, Houston, Texas, USA

**“Initial research in the area indicates that elasticity technology has high specificity for the characterization of breast lesions. The technique is a software modification of a routine ultrasound exam, yet with no noticeable difference to the patient, while still offering diagnostic advantages to both the physician and the patient.”**

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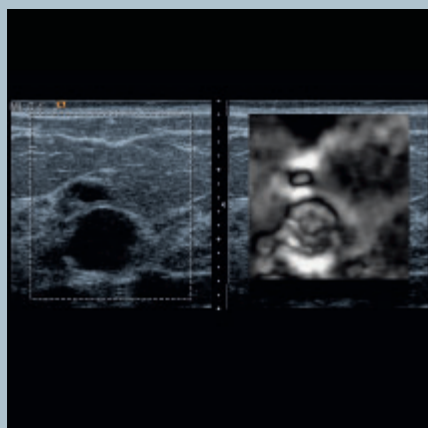
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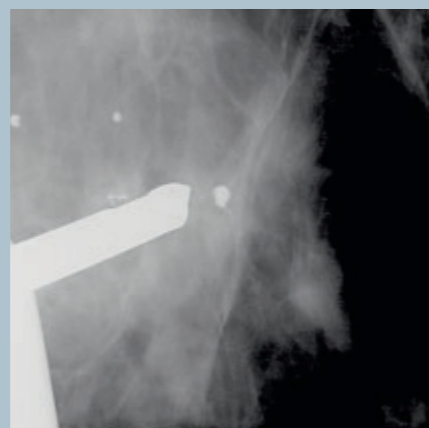
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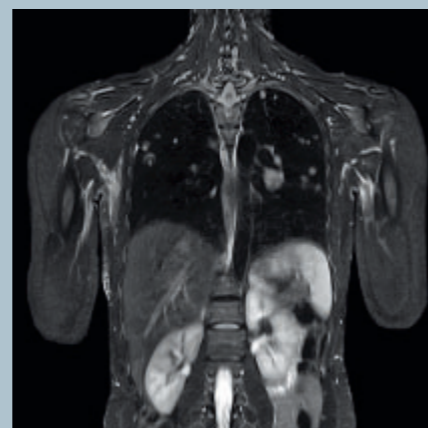
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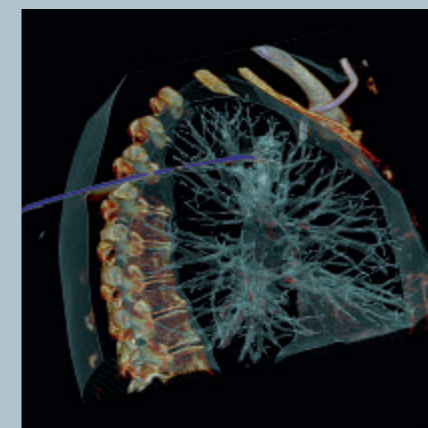
Live dual image: eSie touch elasticity imaging provides additional qualitative information by demonstrating typical characteristics of cysts



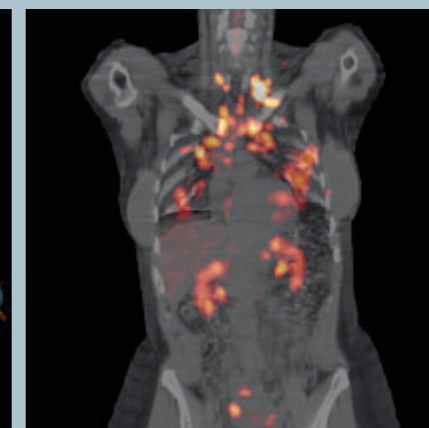
MammoTest's polar coordinate approach offers precise positioning in all areas of the breast



Lobular cancer with lung metastasis and axillary lymph nodes<sup>1</sup>



CT-guided ablation therapy for a metastatic lung lesion



<sup>18</sup>F-FDG PET-CT: multiple metastases in lungs, mediastinal and supraclavicular lymph nodes<sup>2</sup>

<sup>1</sup> Courtesy of First Hill Diagnostic Imaging Center, Seattle, WA, USA

<sup>2</sup> Courtesy of the University of Tennessee, Knoxville, Tennessee, USA

\* At the time of publication, the US Food and Drug Administration cleared ultrasound contrast agents for use in LVO only. Check the current regulation for the country in which you are using the technology for contrast agent clearance.

### Improved detection sensitivity and characterization – with Ultrasound

Ultrasound is set to increase its role in the diagnostic process and become a more integral part of the breast lesion imaging workflow. Innovative technologies and applications will help to improve detection sensitivity and characterization of lesions reducing overall patient discomfort and stress as well as increasing exam efficiency. New diagnostic capabilities have the potential to reduce the number of unnecessary breast biopsies, providing greater insight into pathologies and making ultrasound exams more reproducible and consistent.

**Advanced SieClear spatial compounding** with Dynamic TCE tissue contrast enhancement technology, **Fatty Tissue Imaging (FTI)** and high frequency transducer technology enhance the detection sensitivity of ultrasound. Increased sensitivity and specificity in characterizing lesions can be achieved with **Cadence™ contrast pulse sequencing technology (CPS)\*** and **eSie Touch™ elasticity imaging**. In particular eSie Touch elasticity imaging, which calculates and displays relative stiffness of tissue, is a promising new method that has the potential to eliminate unnecessary breast biopsies. Finally, when it comes to workflow improvements in breast ultrasound imaging, automated applications such as **Automated Breast Scanning (ABS)** and **Native TEQ™ dynamic tissue equalization** technologies will help to increase patient outcomes.

### Exact localization – with Mammography

In the diagnostic process, you need a solution for magnification and localization procedures, digital spot imaging, specimen radiography, galactography

or image-guided stereotactic needle and core biopsies. You may choose to be able to perform diagnostic mammography and biopsies with one economical all-in-one solution. For example with **syngo Opdima®**, our digital biopsy and spot imaging system for upright patient position. An unmatched detector resolution of up to 20 lp/mm and the largest field of view in the industry, 49 mm x 85 mm, for exceptional image quality, depicting even the smallest microcalcifications and therefore increasing diagnostic confidence.

Or you may decide on a dedicated biopsy solution placing the patient in the more relaxing prone position. With our biopsy system **MammoTest™**, procedures are performed out of patients' view. At the same time, however, you can maintain eye contact with your patients, and have full patient and lesion access during the procedure, thanks to MammoTest's 360° range of gantry movement. In addition, the "Target on Scout" functionality gives you the flexibility to use the 0° image for position calculation, thus potentially reducing the number of image retakes. And its lateral arm makes MammoTest ideally suited for small breasts.

### Excellent evaluation of malignant patterns – with Magnetic Resonance

Magnetic resonance has become an integral part of breast cancer care, particularly for patients with dense breasts or breast implants. Our Tim delivers accelerated acquisition speed – while still providing the high spatial resolution needed for breast and lymph node MR diagnoses. In addition to visualizing tumors, magnetic resonance is also an ideal clinical procedure for tumor staging and characterization and evaluation of axillary and whole-body lymph nodes. Metabolic information may also be gained

with **syngo GRACE**, our solution for quantitative MR breast spectroscopy. Using choline as a biomarker, you have the ability to gain essential information on the biochemical composition of lesions. This additional information assists you in determining if lesions are malignant or not and has the potential to reduce the patient risk of unnecessary breast biopsies. Our unique **syngo Chorus MR** helps ensure fast and efficient scan planning, archiving, billing, and the reproducibility for follow-up examinations.

### Accurate tumor staging – with Computed Tomography

When staging a tumor, it is important to determine the presence of additional tumors and potential malignancies throughout the body. For this, it is important to have outstanding image quality with high spatial resolution and maximum coverage. **SOMATOM® Definition AS**, the world's first Adaptive Scanner, is a fundamentally new way to use single-source CT, breaking through the barriers of conventional CT. Intelligently adapting, on the fly, to the unique needs of the patient, adapting to virtually any patient size, and offering complete dose protection. It adapts to the physician's needs and the clinical task – from one specialty to all specialties. Producing more than just the clearest image, but the clearest solution to any clinical question. And thus making the SOMATOM Definition AS the ideal scanner for everyday tumor staging.

Our trendsetting new software **syngo CT Oncology** provides unrivaled diagnostic confidence for routine tumor staging – especially for the evaluation of key tumors such as in the lung and liver, and also for lymph node evaluation. Dedicated autopilots automate tumor segmentation and measurement, enabling robust calculation of the tumor size,

including RECIST, WHO, the volume of the tumor, and tumor burden. And with the seamless integration of image fusion for hybrid imaging plus DICOM RT reporting, **syngo CT Oncology** uniquely offers clinicians a one-stop shop for high speed and maximum confidence in tumor staging as part of breast cancer care.

### Improved diagnostic accuracy – with Molecular Imaging

Particularly in dense breast tissue or implants, it is difficult to reliably stage primary tumors and differentiate benign from malignant breast lesions. Our comprehensive suite of equipment for molecular imaging offers the most sophisticated clinical imaging as well as preclinical and biomarker solutions. Where other clinical procedures may have proven inconclusive, PET has been proven to be very useful in depicting metastases. Hybrid systems such as our **Biograph™** for PET-CT combine the anatomical information provided by CT with the functional information and tumor metabolism obtained with PET, leading to an improvement in diagnostic confidence as well as therapeutic decision-making. Using the tracer <sup>18</sup>F-FDG, PET-CT enables accurate staging of breast carcinoma by localizing axillary lymph node and distant metastases.

Our **Symbia® S** and **Symbia E** for SPECT, and the hybrid **Symbia TruePoint™ SPECT-CT** systems can improve the diagnosis and localization of skeletal metastases. Hybrid devices such as SPECT-CT and PET-CT can improve diagnostic accuracy and eliminate additional investigations, thereby substantially reducing the time needed for diagnoses, which may lead to cost savings and speed up appropriate therapy.

# Treating patients – confidently

Your challenge? Identify the best course of treatment for your patient’s survival. Oncology treatment can be as varied as the patients who suffer from the disease. Our scalable solutions for Adaptive Radiation Therapy (ART) – in combination with our broad platform of imaging modalities and innovations in the fields of tumor markers – provide the flexibility, precision, and confidence needed for successful treatment and patient monitoring. The anatomical and functional information captured, as well as unparalleled image quality, support you every step of the way.

Therapy

act

**Act.** Our innovative portfolio of products offers a leading-edge platform of technologies for complete therapy. We provide clinicians with the flexibility, precision, and confidence to successfully treat each disease pattern and improve patient outcomes.

**“With ARTISTE, you are able to set up the beam so that the heart and lungs are not in the radiation field. An advantage of ARTISTE is that it images in the axis of the beam, not perpendicular to the beam. The image quality is much better. This has really changed physician quality control.”**

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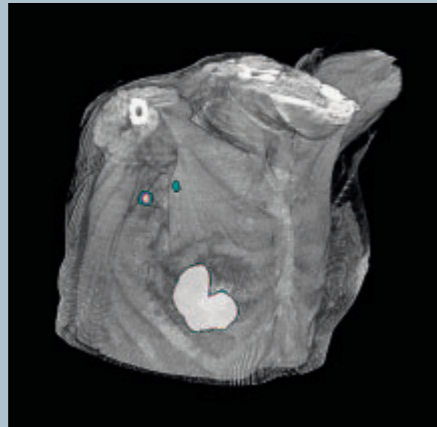
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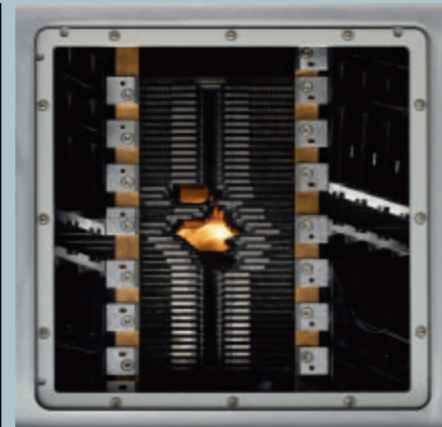




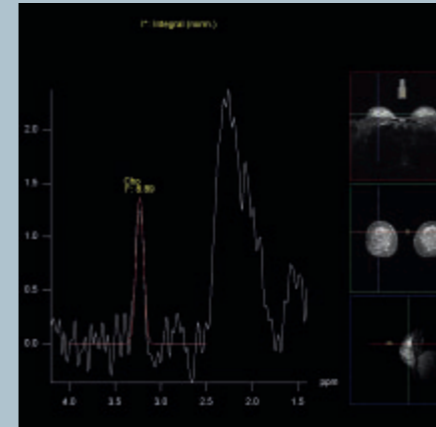
High frequency transducer technology provides excellent clarity in visualization and placement of this small needle to perform necessary biopsy



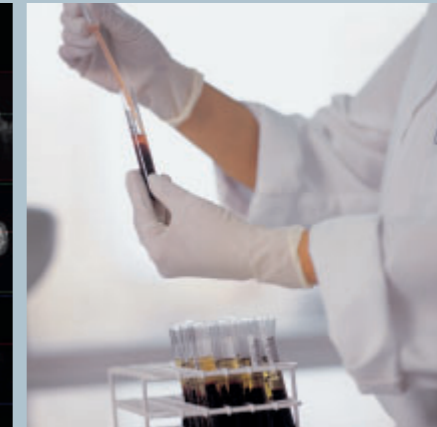
Lymphoscintigraphy performed with Symbia in a patient with primary breast carcinoma<sup>1</sup>



Providing accurate dose distribution: the 160 MLC™ Multileaf Collimator is a standard feature on ARTISTE



syngo GRACE breast spectroscopy including choline quantification



Serial serum measurements aid in patient management

### Clear visualization – with Ultrasound

Ultrasound plays an important role in the localization and guidance of needle and wire placements prior to surgery. Excellent visualization of the needle is achieved utilizing **2D beam steering** to position the beam perpendicularly to the needle shaft. **High frequency transducer technologies** along with **SieClear Advanced spatial compounding** deliver high-resolution images providing visualization of the smallest structures.

### Reliable identification of metastases – with Molecular Imaging

Information obtained with molecular imaging is critical for therapy planning, as the presence of metastases may result in a modification of the therapeutic decision. Combining advanced technologies of two imaging modalities, PET and CT, our **Biograph** system makes it possible to produce an image that reveals detailed anatomy and biological processes at the molecular level of internal organs and tissues from one single non-invasive diagnostic procedure – thus helping to identify distant metastases. In addition, PET•CT fused datasets provide important information for radiotherapy planning, since they provide more accurate delineation of viable tumors.

What's more, lymphoscintigraphy can be performed by our **Symbia** systems. **Symbia S** combines state-of-the-art SPECT image quality with unprecedented workflow automation and handles higher patient volume with ease. And our **Symbia TruePoint SPECT•CT** increases diagnostic confidence for localization of the sentinel node, due to the CT component involved in the hybrid imaging study.

### Effective radiation therapy – with Oncology Care Solutions

When therapy begins, it is important to be able to choose the appropriate radiation therapy technique, easily adapt to anatomical changes and patient movements, and deliver treatments according to each patient's needs. Our scalable **ARTISTE™\*** Solution provides a comprehensive selection of image-guided and advanced treatment delivery tools for infinite flexibility and complete confidence. What's more, the ARTISTE Solution's **Adaptive Targeting™** evaluation software offers the highest system precision: it determines the exact patient position and necessary adaptations by localizing the tumor and displaying it in 3D.

Thanks to the high-resolution 160 MLC™\* Multileaf Collimator, you can deliver the most accurate radiation therapy: The collimator precisely conforms to the shape of the tumor and maximizes dosage

to the target volume while minimizing dosage to the healthy surrounding tissue. In addition, our software application **syngo Suite for Oncology** offers comprehensive and role-based workflow solutions for each member of the clinical oncology team by enabling fully automated sharing, reviewing, and acquisition of data and images.

### Valuable monitoring of tumor development – with Magnetic Resonance

Monitoring the development of tumors and lesions is very important during breast cancer therapy. Our software solution **syngo VIEWS** can help provide ongoing anatomical and functional information about the lesion throughout the therapy process. **Tim** delivers accelerated acquisition speed – while still providing the high spatial resolution. In addition, **syngo GRACE**, our solution for quantitative MR breast spectroscopy, can provide quantified metabolic tissue information by utilizing choline as a biomarker. **syngo GRACE** provides essential information about the biochemical composition of breast lesions, and helps increase confidence in the assessment of therapy efficacy. Our unique **syngo Chorus MR** helps improve and facilitate workflow and supports intelligent extraction of sequence protocols from images acquired worldwide with MAGNETOM systems. This enables a careful therapy monitoring.

### Enhanced information – with Tumor Markers

**CEA, CA 15-3, BR 27.29, and HER-2/neu** preoperative levels may be taken to establish a baseline serum level. Subsequently, serum levels may be serially monitored to assess the efficacy of treatment. Increasing levels may reflect progression, while decreasing levels may mean a patient is responding to treatment. In addition, our serum HER-2/neu test is an FDA-approved blood test to help you monitor changes in the serum HER-2/neu levels and manage the therapy of women with metastatic breast cancer.

Serum HER-2/neu differs from other tumor marker tests in that it is a specific biomarker for metastatic breast cancer patients with HER-2/neu positive breast cancer and an important cellular target for a variety of new cancer therapies. It monitors changes in the levels of HER-2/neu oncoproteins which are independent of tumor bulk. Monitoring the rise and fall of serum HER-2/neu levels can guide therapy and help in the disease management of patients with HER-2/neu positive disease.

\* The ARTISTE Solution and the 160 MLC are pending 510(k) pre-market clearance, and are not presently available for commercial distribution in the US

<sup>1</sup> Courtesy of Dr. Shahid Mahmood, Radiology Clinic Parkway Hospitals, Singapore, Singapore

# Caring about your patients' future – reliably

Identifying changes in your patients' health after the completion of cancer treatment is vital to their ongoing care, and, should recurrence be detected, critical to beginning early cancer treatment. The reliable, detailed clarity of Siemens imaging solutions and the precision of our tumor markers provide you with the highest level of clinical confidence, thus enabling you to assuage patient anxiety and begin retreatment at the earliest stages possible. Improve your patient monitoring, increase patient comfort, and achieve unparalleled image quality with the full line of Siemens Breast Care Solutions.

## Aftercare



follow

**Follow.** With our diverse imaging solutions and innovative methods, we support you in providing the best possible aftercare. Our comprehensive and caring view helps you improve the health perspectives of your patient.

**“SOMATOM Definition AS can provide a reliable diagnosis for any clinical question. Acquisition takes only a couple of seconds, and the entire diagnostic workflow is speedier.”**

Werner Bautz, MD, Professor of Radiology and Medical Director at the University Hospital of Friedrich-Alexander University, Erlangen, Germany

**“My first experiences with measuring serum HER-2/neu for metastatic breast cancer showed that after patients were given chemotherapy, if the treatment was working, serum levels would rapidly decrease in the first three to four weeks after treatment.”**

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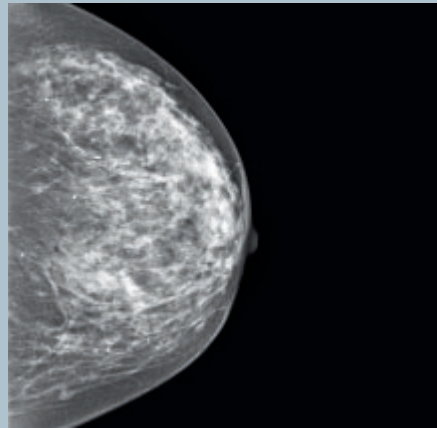
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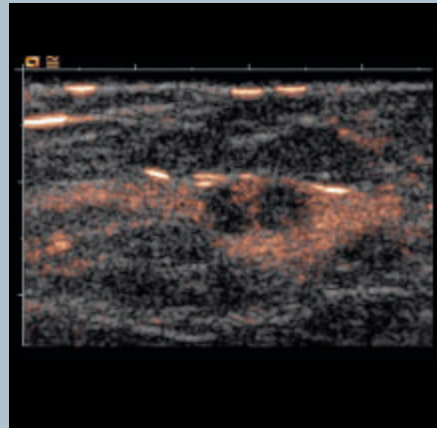
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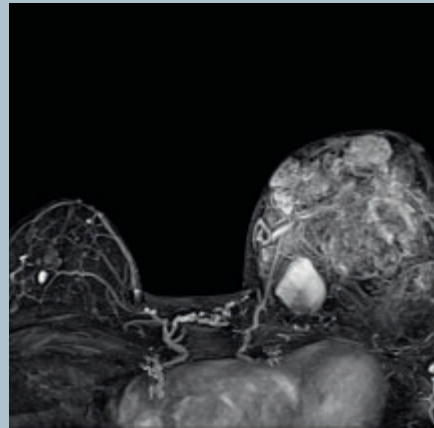
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Digital mammography: small structures like microcalcifications are clearly depicted<sup>1</sup>



Cadence contrast pulse sequencing technology provides superb visualization of the perfusion in this complex breast mass



syngo VIEWS: Cytosarcoma in the left breast

### Diagnostic confidence combined with cost efficiency – with Mammography

Mammography is a common clinical solution for aftercare. Our **MAMMOMAT Novation** offers the lowest possible compression and an appealing design that increase your patients' comfort for a more inviting examination. At the same time, you receive outstanding image quality depicting even the most subtle lesions at low dose. This all is possible thanks to our innovative functions such as SoftSpeed, Opcomp, and Opdose.

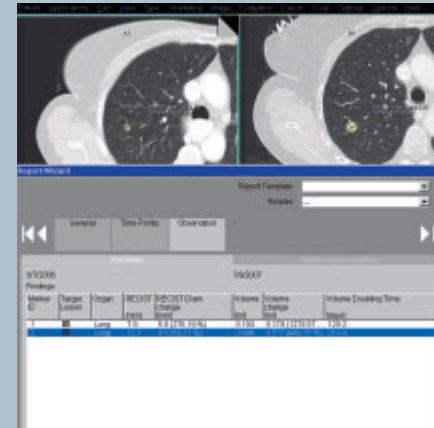
### Improved patient monitoring – with Ultrasound

Ultrasound complements mammography as a standard clinical tool during aftercare, especially when monitoring women with breast cancer. **Cadence contrast pulse sequencing technology (CPS)\*** provides excellent visualization of the micro-vascularity of lesions in pre- and post-surgical follow-up care. Furthermore, the single-sweep, automated acquisition in **Automated Breast Scanning (ABS)** enables you to acquire standardized and reproducible images of the breast – for improved confidence in patient monitoring. Next-generation ABS solutions will integrate all the conventional tools such as Color Doppler, biopsy capabilities, and eSie Touch elasticity imaging. In addition, 3D volume reporting and exam review will be available off the system on a multimodality workstation to improve efficiency in aftercare.

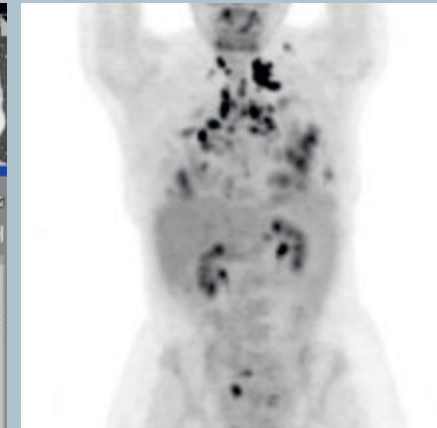
### Excellent diagnostic possibilities – with Magnetic Resonance

Whether fatty or dense breasts or implants – MR systems can help detect the most subtle lesions that might otherwise go unnoticed with other clinical procedures. Showing excellent fat suppression and providing 3D bilateral breast imaging in sub-millimeter range by stimulating the water spins, our **syngo VIEWS** (Volume Imaging with Enhanced Water Signal), powered by **Tim**, provides excellent follow-up possibilities. Physicians benefit from full coverage of both breasts to carefully monitor also the non-affected breast tissue over time and from excellent lateral coverage up to the axillary region. Fast imaging in excellent quality is delivered by **syngo VIEWS** in combination with **syngo GRAPPA**, our unique parallel imaging technique, powered by **Tim**. Due to their 3D isotropic voxels, both breasts can be viewed at the same time and images rotated in all directions for a more accurate diagnosis. Additionally, **syngo GRACE** is an ideal possibility to monitor the biochemical status of breast lesions after therapy. All this would be nothing without **syngo Chorus MR**, the workflow tool for easy reproducibility of follow-up examinations. The result: Magnetic resonance breast imaging and interventional procedures like biopsy provide excellent diagnostic capabilities for follow-up exams.

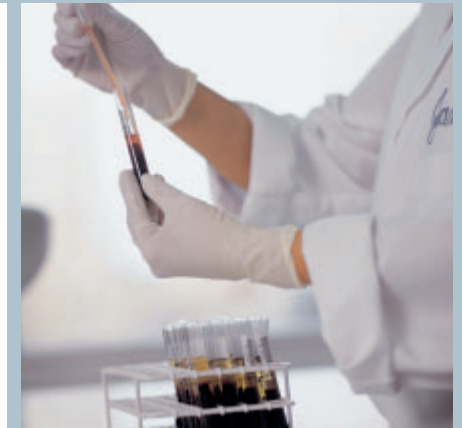
\* At the time of publication, the US Food and Drug Administration cleared ultrasound contrast agents for use in LVO only. Check the current regulation for the country in which you are using the technology for contrast agent clearance.



syngo CT Oncology: follow-up of metastatic lung lesion



PET: breast carcinoma distant metastases<sup>2</sup>



Serial serum measurements aid in patient management

### Detailed anatomical and functional information – with CT and Molecular Imaging

Scanning for possible metastatic disease throughout the body plays an essential role in follow-up examinations as well. Combining our latest CT scanner **SOMATOM Definition AS** with **syngo CT Oncology**, physicians benefit from unparalleled image quality that depicts even the smallest anatomical abnormality. Moreover, this combination also offers fully automated tumor segmentation and measurement for a robust, reliable tumor evaluation. Additional functional information can be obtained with our **FDG PET•CT** scanning, which helps detect even most subtle local tumor recurrences and distant metastases. And recurring skeletal metastases can be detected and their progress sequentially evaluated using **SPECT** and **SPECT•CT**. Thus, our molecular imaging tools help clearly identify any recurrences as early as possible – with only one exam.

### Easy patient management and monitoring – with Tumor Markers

When used in conjunction with other clinical procedures, our in-vitro diagnostic solutions aid in the management of breast cancer patients. **CEA**, **CA 15-3**, and **BR 27.29** are useful tools for monitoring and detecting recurrences in previously treated Stage II or Stage III breast cancer patients. **HER-2/neu** serum levels are used during aftercare for monitoring metastatic breast cancer.

<sup>1</sup> Courtesy of Prof. Dr. Uhlenbrock & Partner, Dortmund, Germany

<sup>2</sup> Courtesy of the University of Tennessee, Knoxville, Tennessee, USA

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