

DIGITAL RE

Gwinnett Hospital System upgrades to digital-imaging technology

Do you own a digital camera? If you said “yes,” your reasoning was probably along the lines of:

- ◆ I don't have to buy film.
- ◆ I don't have to print every photo I take.
- ◆ If I take a bad photo, I know it immediately and can take another in an instant.
- ◆ I can keep all of my photos on my computer and send them to friends and family.

Sound about right? Your Gwinnett Hospital System facilities agree, and have taken great strides to improve technology in the same manner, bringing convenience and quicker service to patients.

Imaging technology has long been achieved through film—X-rays,

magnetic resonance imaging (MRI) and computed tomography (CT) scans all are produced to film in the same manner as your 35 mm camera. The result is evidenced in a 12,000-square-foot warehouse that stores years and years of archived film images.

The solution? PACS, or picture archiving communication system, uses computers rather than film to distribute and archive images. The move to digital storage will eliminate the burden of housing film archives. Instead, images are stored digitally, creating a variety of benefits to patients and physicians alike.

What Does This Mean for Me?

PACS reduces patients' wait time by bypassing development of film. A

digital image is produced in a fraction of the time film requires. In addition, digital images can be enhanced on a computer, which means fewer retakes—and therefore less exposure to radiation. PACS' digital-image-enhancement ability allows for more accurate diagnoses, which leads to more effective treatment and shorter hospital stays. The medical history of a patient will be updated automatically, and will be available to the patient upon request via compact disc or “old-fashioned” film.

The value of PACS to your GMC caregivers is equally favorable. A patient's image history is available electronically to any physician whom the patient may see in the future, providing instant patient history with the click of a button. This secure computer file can also be accessed from any location by lab technicians and other healthcare workers, facilitating communication among a physician and other imaging specialists.

A doctor can also have several different versions of an image to analyze, due to the ease of producing a digital image. Quality will also be greatly improved, allowing easy enhancement of certain areas of an image. And with the digital history of a patient at the tip of one's fingers, comparing current images to ones from years past is a snap.

PACS was introduced at all Gwinnett Hospital System facilities in the fall of 2005. ■



Digital-imaging technology allows healthcare workers instant access to a patient's image history. X-rays, MRI, CT scans and digital mammograms are all available at the click of a button.

SOLUTION

Digital mammography has arrived at Gwinnett Hospital System

Gwinnett Hospital System now provides digital-imaging technology at all of its mammography screening centers: Gwinnett Women's Pavilion, the Marion Allison Webb Center for Screening Mammography and Glancy Outpatient Center.

Kimberly Hutcherson, M.D., agrees. "Digital mammography is revolutionizing breast care by delivering extremely clear, detailed images that enable significant reductions in callback rates, image retakes and exam times," says Dr. Hutcherson, one of three radiologists at Gwinnett Medical Center who specialize in breast imaging.

In fact, a government-sponsored study recently published in the *New England Journal of Medicine* found that digital mammograms are significantly better than traditional film mammograms at helping physicians detect breast cancer in certain groups of women.

Led by a researcher from the University of North Carolina at Chapel Hill, scientists from the American College of Radiology Imaging Network evaluated 42,760 North American women who underwent digital and film mammograms, the results of which were reviewed by two independent radiologists.

According to the study, digital mammography was "significantly more accurate" than film mammography in women younger than

age 50, women with dense breast tissue and premenopausal women, detecting between 11 percent and 15 percent more cancers. The researchers concluded that using digital mammography is "superior enough" in the groups of women sampled "to warrant recommending it." Additionally, the National Cancer Institute and the American Cancer Society recommend that women in these groups "seek digital mammography where it is available" (Pisano et al., *NEJM*, September 16, 2005; Stein, *Post*, September 9, 2005; Marchione, *AP/Long Island Newsday*, September 16, 2005).

"It has long been a goal to have digital mammography available to the women of Gwinnett County," says Carolyn Hill, chair of the TIME



MATTERS campaign and president of the Gwinnett Hospital System Foundation board of trustees. "This new research proves the value of new technology in the fight to save lives. It is with great pride that the Gwinnett Hospital System Foundation is able to provide this service to our patients." ■

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