

# Hospital Improves Patient Care, Referring Physician Access and Department Workflow with PACS

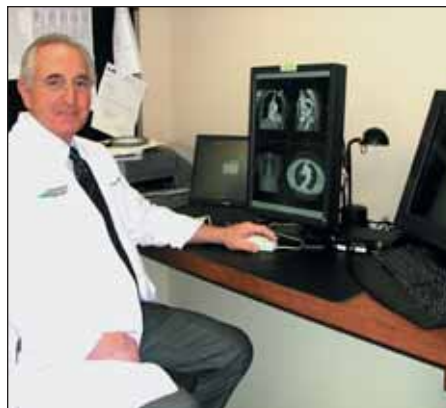
Founded nearly 90 years ago, Northern Westchester Hospital (NWH) is a 233-bed facility located in Mt. Kisco, NY, serving the people of Westchester, Putnam, Southern Dutchess and Fairfield counties. With a staff of more than 500 physicians, NWH offers state-of-the-art patient care in a community setting, including CT, MRI and mammography. A complete range of diagnostic, medical and surgical services are provided by the hospital on an emergency, inpatient and outpatient basis. Its outpatient center provides alternative and traditional treatments.



Northern Westchester Hospital, a 90-year old 233-bed hospital in Mt. Kisco NY.

In 2003, the hospital's administrators looked at options for converting film-based imaging services to a digital imaging and archiving system. The hospital decided to install a PACS to increase efficiency, provide better accessibility for referring physicians and eliminate the high cost of producing and storing film.

NWH also realized that a PACS would help improve patient care and create a competitive advantage. "There's a saying that the best time to plant a tree was ten years ago; and if you didn't do it then, you should do it now," said Dr. Lou Perez, NWH site director for imaging services. "It's the same with a PACS — if you do not already have a PACS in place, now is the time to do it."



Dr. Louis Perez, NWH site director for imaging services, sitting at one of the hospital's EXAM-PACS workstations.

NWH's conversion from film to digital imaging posed a two-fold challenge: first, it needed a PACS vendor with a system that could be customized to meet its specific needs; second, it needed a PACS that didn't exceed its budget.

The facility looked at systems from a variety of companies and chose EXAM-PACS from CoActiv Medical Business Solutions (Ridgefield, CT). The system was deployed in January 2004.

"We were impressed with CoActiv's work on the IT side and we became interested in its EXAM-PACS solution," said Warren Geller, NWH's senior vice president of administration. "It turned out that the number one quality that separated CoActiv from the other vendors was its efficiency in offering a solution that met our demands while keeping costs low."



Warren Geller, NWH senior vice president of administration, beams while reviewing the savings provided by his PACS.

CoActiv's product development uses standard, high-performance, off-the-shelf hardware components. "The PACS hardware will always be our hardware and is not an exclusive PACS purchase," Geller explained. "And, our images are archived in a DICOM-compliant manner so they can be accessed with any DICOM-compliant software on any PC-based platform."

NWH received product functionality, training and customer service for roughly one-third to one-half the price of most other PACS. "Price is a very big factor in New York healthcare," Geller said. "It was critical for us in making a purchasing decision, but at the same time we didn't want to cut corners."

According to David Natoli, NWH administrative director for imaging services, the weekend installation process was trouble-free. "It's no different from the implementation of any new technology — you can't plan enough," he advised. "You have to communicate, and when you feel like you've communicated enough, then communicate some more."



Dave Natoli, NWH administrative director for imaging services, displaying his new Toshiba multi-slice CT scanner.

## The Results

NWH's PACS includes: tools to pan and zoom, or scroll through a stack of CT or MR slices; instant review of a patient's exam history; or customized CDs for patients and referring physicians. Plus, it provides NWH radiology staff and referring physicians with near-instant access to studies. "Film has always been seen as the gold standard in terms of image detail," Dr. Perez added. "But with film, you don't have the ability to change settings and levels, magnify the image, or any of the other things you can do to digitally manipulate the image. This PACS offers a versatility and robustness that film cannot match."

When a second opinion or a specialist is required, an exam can be easily and quickly sent to another radiologist located at a different site. "CoActiv's EXAM-Sender automatically sends the completed exam to referring physicians and notifies them that it's ready for review," Natoli stated. "This allows us to provide faster turnaround and helps us keep referring physicians and their patients satisfied." This feature has helped NWH to solidify its relationship as an affiliate with New York-Presbyterian Hospital's department of pediatric radiology. "Second opinions are important to parents in pediatric cases," Dr. Perez said. "It literally takes me two keystrokes to get a virtually-instant consultation."

Geller is pleased that NWH has not experienced any system downtime since implementation — even during a recent hospital-wide conversion to an integrated clinical information system. And as an administrator, he's pleased with the results of the investment. "In the first year, this system paid for itself — for our entire investment — and then some," he commented.

Dr. Perez joined the hospital when the system was newly installed. "I always looked at a PACS as something that you had to gradually learn over a period of years." His experience with the PACS exceeded all expectations. "Within minutes of sitting in front of it for the first time, you can easily begin to navigate through the various functions and programs," Perez explained.

According to Dr. Perez, the hospital's PACS became a valuable recruiting tool. Recently, he interviewed a prospective radiologist whose workload reading body CT scans has drastically increased because of the advent of multi-slice scanners. NWH was able to present its PACS to the job candidate as a tremendous advantage.

PACS is also a valuable employee retention tool, adds Geller. "Radiologists — especially ones that are sub-specialty trained and have years of experience — are difficult to come by," he said.

The improved work environment extends to non-physician staff and referring physicians as well. "We underestimated the positive effect that this would have on staff morale," Natoli explained. "It's had a tremendous impact on all of them because the workflow is easier, there are no more lost images and it provides instant gratification because you can retrieve and view images right away."

"Ultimately our job as radiologists is to make a correct diagnosis," Dr. Perez said. "In the CoActiv PACS environment, it's easier to get it right and to reduce uncertainty. With a PACS, suddenly what was impossible and challenging has now become quite simple," Dr. Perez concluded. "For that reason alone, it's worth it." ■

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