

Morristown reduces trauma prep time by approximately 66 percent

GE Definium AMX 700 is key technology

As busy highways have grown around Morris County, New Jersey, Morristown Memorial Hospital has adapted to meet the needs of multiple-trauma accident victims. The hospital's level one trauma facility performs as many as 500 radiographic procedures each day.

Dr. Jeanne Schwartz, Department of Radiology Chair, says high trauma volume was a key factor in the hospital's decision in 2006 to purchase two cutting-edge digital mobile X-ray units from GE Healthcare. Located in the ER, the Definium™ AMX 700 units immediately provided an integrated, flexible imaging solution to our facility's high demands.

The X-ray units are easily positioned directly at the point of care. Clinicians view the images on the units screen almost instantly and can make quick, accurate diagnoses. Trauma team members can review images simultaneously, even from offsite. And patients receive lower radiation doses.

History of innovation

Innovation in care is a trademark of Morristown Memorial, one of New Jersey's leading and most dynamic medical centers. The hospital has served Morris County for more than 100 years, setting high standards of care and earning national recognition. This 637-bed university-linked teaching and research hospital is a regional referral center in trauma and in other areas, such as pediatrics and high-risk obstetrics.

The digital mobile X-ray units replaced analog systems and significantly reduced treatment time for trauma patients. "Because of our high volume of trauma cases, there were often long delays in obtaining the X-ray images," explains Dr. Schwartz. "And any repeats on film took more time than we were willing or could afford to wait."



Morristown Memorial Hospital in New Jersey

The Definium AMX 700 provides immediate access to images, saving valuable patient and physician time. Repeats, if needed, are quick and simple. High-resolution digital images appear in seconds on the 15-inch monitor next to the patient, enabling physicians to complete preliminary trauma workups much faster.

"The trauma surgeons are almost always very impatient while waiting for their clinical images. Now, the images are available within seconds. All of us are now extremely happy with the increased efficiency," says Dr. Schwartz.

Trauma surgeon Dr. Felix A. Garcia agrees. "The digital portable units allow us to review the images in seconds and make clinical decisions without delays," he says. "In fact, I'd estimate we have reduced the time to complete our preliminary trauma workups by two-thirds compared with our former analog portable machines."

The Definium AMX 700, an ergonomically designed, compact system, glides through busy hallways and turns easily in tight quarters.



About the Definium AMX 700

The Definium AMX 700 is a mobile digital radiographic system from GE Healthcare, spawned from the extremely popular AMX platform that continues to provide the durability and dependability that the mobile environment requires.

Additional hardware and software features have been added, reducing the required time to acquire and disseminate clinical information. Features include:

- Wireless transmission functionality, enabling on the fly worklist updates and image transmission to PACS.
- GE's Cesium Iodide 16-by-16 inch square flat panel detector technology, highest image quality at the lowest dose.
- Auto Protocol Assist and Definium automatic processing tools, provides for easy technique setting and consistent image processing, customized to the customer preferences.

"There is true ease of use here," Dr. Schwartz says. "The ability to bring the unit to the patient – and obtain digital images almost immediately – is key."

Technologist Joe Walker agrees. "We had been using the GE AMX analog portable units for years and loved the ease of use and dependability. The digital system is even better. It saves so much of my time and enables the doctors to make treatment decisions quicker."

Walker also likes the square detector – he noticed a reduction in clipped images when compared to a 14- by 17-inch CR cassette. "And the dose savings are huge; we are at 25 percent the dose for a chest exam when compared to CR," he says. Another advantage of the Definium AMX 700 is that it archives images and makes them easily accessible. "Now, images are never lost," Dr. Schwartz points out.

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Dr. Felix A. Garcia



Dr. Jeanne Schwartz

"With archiving on board, there is never any need to go through reams of film." Access to the images can be simultaneously accessed and reviewed by anybody on the trauma team, even remotely. And with wireless transmission capabilities, the completed image can be viewed at a high-resolution PACS display within seconds.

Because the flat panel digital detector efficiently captures the anatomical region of interest at a significantly reduced dose compared to film or CR technologies, patients who need multiple exams over an extended stay reduce their total radiation exposure.

Because of the success the Definium AMX 700 has shown in the ER, other acute areas at Morristown Memorial, including the recovery room, are very interested in the technology, according to Dr. Garcia.

All in all, the Definium AMX 700 has been a valuable addition to an extremely busy and demanding facility. By adding digital speed and accuracy to the agility and flexibility of a mobile unit, the technology gives the Morristown ER a critical tool – in keeping with the hospital's long tradition of flexibility and innovation.

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