



Shifting Gears with Digital Mobile X-Ray

Using digital mobile x-ray can help increase productivity

GE Healthcare collaborated with Vidant Medical Center to evaluate the productivity impact of switching from analog mobile x-ray to digital

Reliability is an essential aspect to ensure continuous operation. The Optima™ XR220amx has exceeded our staff's expectations. The GE representatives have delivered excellent service and their staff always respond promptly to any request.—Sandra Sackrison, Vidant Health, Radiology System Service Line Administrator

CUSTOMER

Vidant Medical Center (Greenville, NC) is a tertiary referral center and provides acute, intermediate, rehabilitation and outpatient health services to more than 1.4 million people in 29 counties. In an average year, about 33,000 inpatients and more than 266,000 outpatients are treated. Vidant Medical Center Radiology Services provide a full range of imaging services for inpatients and out-patients throughout eastern North Carolina, USA.

EVALUATION METHODS




Two technologists were shadowed for 2 weeks and randomly assigned to the Optima XR220amx digital radiography (DR) or the AMX-4 computed radiography (CR) system. The two research assistants gathered time data on 192 cases (97 CR and 95 DR). For each morning shift, each of the two technologists were handed batches of 6–10 requisitions to complete before returning for more until all of the scheduled examinations were performed. After the morning rounds, the technologists were given individual cases to complete on an ad hoc basis. The research assistant timed the technologists as they performed the following actions:

- Time entered the patient's room
- Time of initial image exposure
- The time when all images for an exam were approved as diagnostically adequate
- The time when the images were sent to the review workstation
- The time when the images were sent from the review workstation to archives

This case study demonstrates the productivity gains at Vidant associated with switching to DR mobile systems when performing both batch rounds and individual case x-ray exams.



PRODUCTIVITY BENEFITS OF THE OPTIMA XR220amx

-  Completed batch rounds in ½ the time¹
-  Sent individual cases to the review workstation 3x faster²
-  Reviewed images in real time with 3 second average image previews

MOBILE UNITS

Optima XR220amx

The next-generation AMX is a fully digital mobile x-ray system that brings advanced digital imaging technology to patients.

AMX-4

AMX-4 is a GE mobile analog x-ray system

¹ Time from when technologist entered the room to when images were sent to archive

² Time from when technologist entered the room to when images sent to the review workstation