

LESS IS More

New PET/CT scanner offers *fast, accurate exams* for a wide range of patients

BY JOHN BERGGREN

Patients undergoing positron emission tomography/computed tomography (PET/CT) scans were introduced to new technology this summer with the implementation of the Siemens Biograph mCT at Salina Regional Health Center's Outpatient Imaging Center.

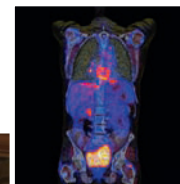
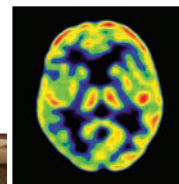
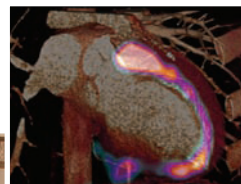
The Biograph mCT offers some of the latest advancements in PET/CT imaging to produce faster, more accurate, high-resolution images with lower doses of radiation. A wider 78-centimeter opening and a shorter tunnel improve patient comfort, allowing them to feel less claustrophobic, while also accommodating patients up to 500 pounds.

"We're pleased to be able to provide some of the most advanced imaging technology on the market and make it available to patients in our region on a daily basis," says Terry Hauschel, imaging and diagnostic services director at Salina Regional Health Center. "The technology has many advanced applications in oncology, cardiology and neurology."

CLEARER IMAGES, LESS RADIATION EXPOSURE

The system has the flexibility to be used for CT or PET/CT combination studies. CT scans use X-rays at many different angles to create cross-sectional images of bone and soft tissue within the body. The resulting images can be compared to looking at single slices of bread from a loaf, which can be combined to create 3-D images of organs or structures in greater detail than a standard X-ray. Technology used by the Biograph mCT produces significantly clearer images with a 30 to 60 percent reduction in radiation exposure.

PET scans use radioactive pharmaceuticals injected into the body to study the biochemical, functional and molecular processes that occur.



Salina Regional Health Center's Outpatient Imaging Center began using the new PET/CT scanner in June.

As the radioactive pharmaceutical is metabolized, the scanner records the process, which allows doctors to identify abnormal function of organs and tissues. A fourth detector ring on the PET increases sensitivity for the studies and greatly reduces scan times for patients. A new radioactive pharmaceutical injection system coupled with the PET scanner enables technicians to utilize weight-based dosing to further decrease patient exposure to radiation.

INCREASED SENSITIVITY, BETTER RESULTS

"We had a patient that needed a repeat PET/CT scan, and with this new system, we were able

to reduce her scan time from 28 minutes to 12 minutes and her radiation exposure by more than 30 percent," Hauschel says.

The increased sensitivity of the machine allows doctors to characterize and monitor the tiniest cancer lesions, quantify myocardial flow and possibly detect early signs of dementia and other neurological disorders.

"It can be difficult to pick up metabolic activity using PET when lesions are smaller than 8 to 10 millimeters in size," says Salina radiologist John Riekhof, MD. "We were recently able to detect a lung cancer 4 millimeters in size that we may not have been able to see with our previous technology." ■

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