



Interventional CT: More Procedures, Reduced Dose, Improved Speed at Minimal Cost

St. Nicholas Hospital

Case Study

www.usa.siemens.com/healthcare

SIEMENS



Key Benefits



Clinical:

Improved image quality including angiographic studies combined with dose-reduction features designed to help protect patients from unnecessary dose.



Workflow:

Comfortable 78-cm gantry allows for fast patient positioning and comfortable imaging even for the most challenging patients.



Financial:

Peace of mind that comes with an investment in a CT that will serve the whole population, including obese patients.

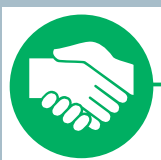


Partnership:

Confidence in system uptime with proactive service including remote monitoring.

Near the tranquil shores of Sheboygan, WI, St. Nicholas Hospital faced a significant challenge: how do you improve image quality, reduce dose, and increase the speed and complexity of interventional CT procedures—without increasing costs?

Like many of the nation's hospitals, St. Nicholas is under considerable pressure to improve its utilization and efficiency. With 185 licensed beds, St. Nicholas is one of two hospitals serving about 124,000 residents in Sheboygan County. And while it may not be as large as a university medical center, it takes its responsibility to its residents quite seriously—which is why lowering the dose its patients received was a key factor behind the motivation to upgrade its CT system.



“What we asked Siemens to do is find a solution for us, a way where we could use the money we were paying for the additional service contract we needed, and put it into a new scanner.”

David Fisher, MD, PhD
Medical Director of Diagnostic Imaging

“This enabled us to take an end-of-life scanner and replace it with a state-of-the-art scanner and to do so at neutral cost, compared to what the hospital had been paying.”

David Fisher, MD, PhD
Medical Director of Diagnostic Imaging



Lowest Dose Possible & High-Quality Images

“We had adjusted our dose according to the American College of Radiology guidelines, but the image quality on our existing system suffered, so we wanted to improve the image but still maintain the lowest dose possible,” says David Fisher, MD, PhD, medical director of diagnostic imaging at St. Nicholas. “I think in a small community, referring doctors and residents trust that we’re going to be concerned about dose and take steps to keep our doses as low as possible.”

Yet, the hospital had no budget to replace its existing CT system. St. Nicholas was, however, spending a significant amount of money on the service plan for its existing 16-slice CT system. “What we asked Siemens to do is find a solution for us, a way where we could use the money we were paying for the additional service contract we needed, and put it into a new scanner that offered a reduced dose, improved resolution, and increased biopsy capabilities,” says Dr. Fisher.

Siemens suggested the SOMATOM® Definition AS 20, which offers reduced dose exams by eliminating unnecessary patient exposure during spiral acquisition. It features a wide 78-cm bore and on-site upgradeability with minimal downtime. “This enabled us to take an end-of-life scanner and replace it with a state-of-the-art scanner and to do so at neutral cost, compared to what the hospital had been paying,” says Dr. Fisher.



David Fisher, MD, PhD
Medical Director of Diagnostic Imaging

“The new system cut our biopsy times in half almost immediately, which is huge. The dose is much less and the resolution and image quality are better.”



Faster Interventional CT

Installation went smoothly; St. Nicholas used a mobile CT to maintain services while the old unit was decommissioned and the new one was installed, which occurred ahead of the timeline. The staff noticed differences between the systems right away. "We were able to do all the standard CT interventions before," says Dr. Fisher, "but the time it took to do them was quite long because there was a substantial delay every time you needed to acquire images to evaluate needle placement."

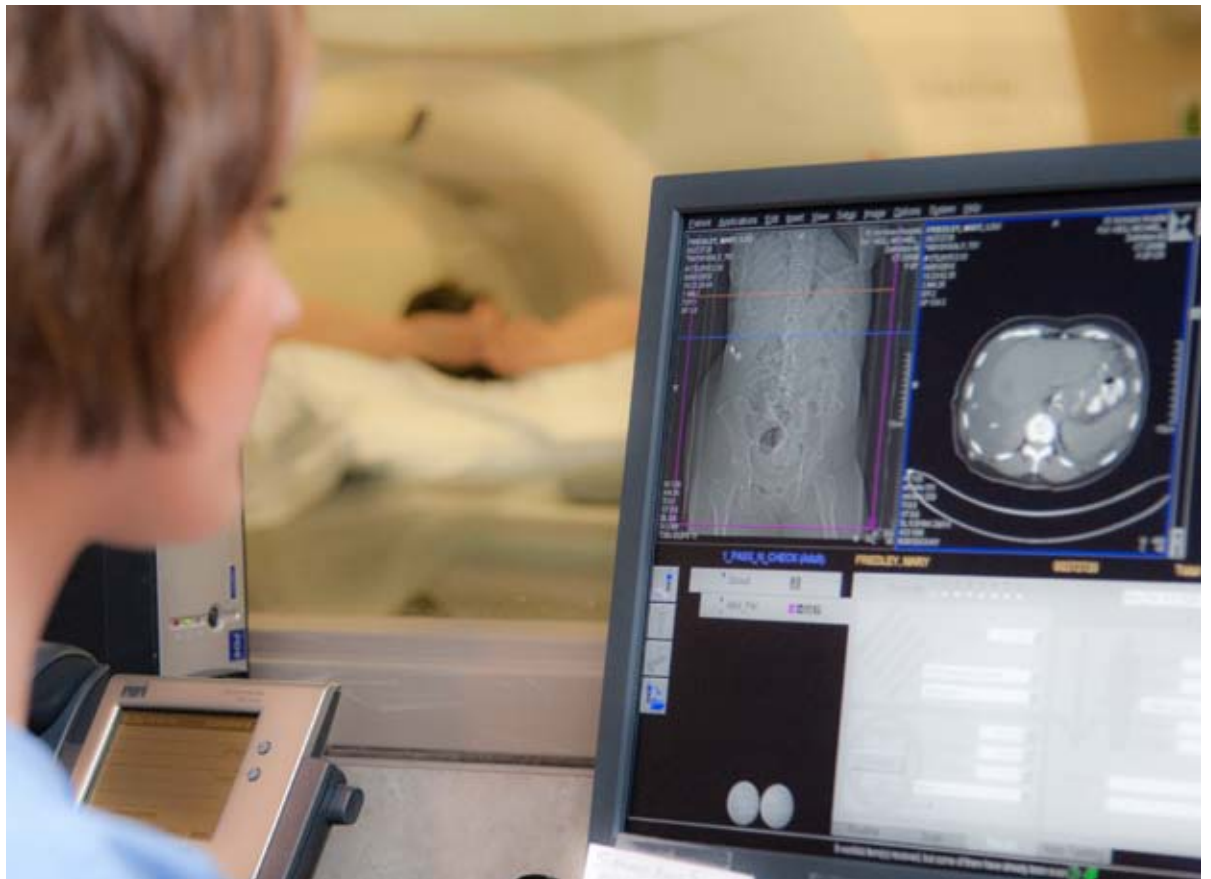
"The new system, though, cut our biopsy times in half almost immediately, which is huge. The dose is much less and the resolution and image quality were improved," continues Dr. Fisher. "The other day we biopsied a rib lesion that ended up being an enchondroma. We would never have been able to pull that off with the old scanner. The lesion was a moving target; even small differences in lung volume changed its position. But with HandCARE™ and CT Fluoro, we were able to put the needle directly into it."

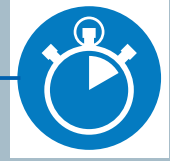


More Efficient Workflow

The acquisition and reconstruction speeds have also improved departmental workflow. Exam time slots are now shorter, which would not have been possible with the previous system since it took so long to reconstruct. Ultimately, St. Nicholas expects staff scheduling to be enhanced, leading to more efficient, more effective workflows for the department. "Our whole turnaround time has improved because this is a much faster machine," says Dr. Fisher.

The ease with which the SOMATOM Definition AS 20 can be upgraded was another key factor in St. Nicholas' decision to go with the system. "We now have a platform that we can easily upgrade. This solution paves the way for us so that, when the time comes, we can start a state-of-the-art cardiac program with a simple one- or two-day upgrade. I'm extremely happy with it," says Dr. Fisher. "In my opinion, Siemens has always been a leader in CT technology and I think they continue to be."





“Our whole turnaround time has improved because this is a much faster machine.”

David Fisher, MD, PhD
Medical Director of Diagnostic Imaging

On account of certain regional limitations of sales rights and service availability, we cannot guarantee that all products included in this brochure are available through the Siemens sales organization worldwide. Availability and packaging may vary by country and is subject to change without prior notice. Some/All of the features and products described herein may not be available in the United States.

The information in this document contains general technical descriptions of specifications and options as well as standard and optional features which do not always have to be present in individual cases.

Siemens reserves the right to modify the design, packaging, specifications and options described herein without prior notice. Please contact your local Siemens sales representative for the most current information.

Note: Any technical data contained in this document may vary within defined tolerances. Original images always lose a certain amount of detail when reproduced.

Local Contact Information

Siemens Medical Solutions USA, Inc.
51 Valley Stream Parkway
Malvern, PA 19355-1406
USA
Phone: +1-888-826-9702
www.usa.siemens.com/healthcare

Global Business Unit

Siemens AG
Medical Solutions
Computed Tomography
Siemensstr. 1
DE-91301 Forchheim
Germany
Phone: +49 9191 18-0
www.siemens.com/healthcare

Global Siemens Headquarters

Siemens AG
Wittelsbacherplatz 2
80333 Muenchen
Germany

Global Siemens Healthcare Headquarters

Siemens AG
Healthcare Sector
Henkestrasse 127
91052 Erlangen
Germany
Phone: +49 9131 84-0
www.siemens.com/healthcare

Legal Manufacturer

Siemens AG
Wittelsbacherplatz 2
DE-80333 Muenchen
Germany

www.siemens.com/healthcare