Key Takeaways

Salem Regional Medical Center (SRMC) was seeking to bring the future of radiology to their Northeastern Ohio service region. As a part of this effort, SRMC’s Department of Medical Imaging acquired a low radiation dose CT scanner. To support the scanner’s speed and capabilities, SRMC equipped their Medrad® Stellant® CT Injection Systems with workstations and software by Bayer in Radiology, creating a new Contrast Dose Management platform.

Equipping existing CT injectors with workstations and optional software accessories helped SRMC:
• Improve efficiency by enhancing the capabilities of existing equipment
• Reduce documentation errors and simplify compliance by automating technologist workflows at the point-of-care
• Promote reproducible quality through automated and accurate post-study documentation
• Take technologist guesswork out of contrast dosing through personalized patient protocol software
Improving Efficiency with Automation

SRMC wanted to augment its new high-tech CT scanner with tools that encouraged speed, safety and performance. The workstation and software they obtained from Bayer in Radiology proved to be an important complement to the department’s existing Stellant CT injectors. It helped SRMC increase documentation accuracy, automate workflows and optimize contrast protocols based on patient weight using P3T® while simultaneously improving documentation.

“Our new CT scanner is extremely fast and able to provide images in very short order,” explains Dr. Peter Apicella, Chairman of the SRMC Department of Medical Imaging. “The P3T software allows us to optimize and reduce the amount of contrast when necessary because the scanner is so fast. That’s the future of radiology, fast scanners that can provide quick imaging at low doses.” Bayer in Radiology’s solution “supports that very well.”

Automating workflows was key. It enhanced speed at the point-of-care, improved documentation accuracy and made it easier to fulfill compliance obligations because errors were reduced and information gaps were virtually eliminated. SRMC Registered Technologist Debbie Mesmer reports, “Documentation is much faster, more accurate and everything’s there at the touch of a button for us.”

“Our technologists were manually documenting information,” notes Andrew Clark, SRMC Operations Supervisor. “The new technology standardizes how we record and capture data and helps us where ACR stipulates that certain information is required for accreditation.”
Accessing Accurate Information More Quickly
With better workflows, consistency improved because it allowed for easy access to standardized information enterprise wide. “One of the biggest advantages...[for] our department is consistency in performing high-quality examinations, irrespective of patient size, and standardization across all of our machines,” says Dr. Apicella.

The staff now has the ability to see the Modality Work List directly and match up the correct patient with the correct study.

“The Modality Work List enables us to pull up the patient's name and information so that we have the information accessible during the exam. This helps to enhance accuracy and reduce the chance for documentation error,” explains Mesmer.

In addition, the technologists appreciate the workstation’s accessibility. Mesmer likes the fact that it is “very compact; it’s all in one area for us. We don’t have to move away to another computer. We’re able to see our patients, complete other necessary tasks at the same time and stay on top of all the details as we’re programming in the information.”

Dr. Apicella agrees. “The workstation provided our staff the capability to see their work list directly and the ability to match up the correct patient with the correct study, and that’s been a tremendous improvement in terms of the quality of providing the right contrast to the right patient.”

The software’s ability to store and recall protocols has made additional inroads in enhancing efficiencies and reducing the potential for errors.

Mesmer sees that protocol management has significantly streamlined workflows for technologists at the point of care. “We love the fact that we can program in all of our protocols. This feature helps to support us in ensuring that the same high standard of care is delivered by all the technologists. We have about a dozen techs that cycle through our area, so it helps us to reduce technologist programming errors.”

*The software allows users to pre-program their protocols.
From an operations point of view, Clark sees workflow and patient care positively impacted by the improved access to information. “The protocols are already pre-programmed.* They’re set so the technologist simply brings up the menu, selects the respective protocol and goes onward with the study. They don’t have to worry about trying to remember and manually program in various injection factors, since this is automated through the protocol.”

**Taking the Guesswork Out of Contrast Dose**

SRMC has found that for certain exams like cardiac, PE and abdominal studies, P3T, the personalized patient protocol software offered by Bayer in Radiology, helps the radiologist confirm that the correct dose is administered by using the patient’s weight to calculate a personalized contrast dose. “It takes the guesswork out for the technologist,” says Mesmer.

Dr. Apicella reports seeing an improvement since the personalized patient protocol software was implemented. “It allows us to optimize the appropriate contrast dose for patients of all sizes and provides us with the high quality we’re used to seeing in our exams.”

**Contrast Dose Management “Directly Impacts the Quality of Patient Care That We Can Provide.”**

Bayer’s complete solution offered SRMC benefits beyond the point-of-care as well. Physicians and technologists now have easy access to post-procedure data they can use to investigate issues and tie to outcomes. “The secondary capture benefits us when we’re trying to problem solve,” says Dr. Apicella. “Not only does it tell us the amount of contrast that was injected, but also the rate and time, and allows us to problem solve things like pulmonary embolism studies, and provide better quality of care for future patients when the study isn’t quite right.”

Andrew Clark sums up the biggest benefit of Bayer’s Contrast Dose Management solution for the Medical Center: “It supports our efforts to optimize our overall efficiency and directly impacts the quality of patient care that we can provide. It allows us to make sure that our patients receive the most appropriate dose using standardized protocols, and it records all of the required patient information to ensure accuracy.”

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*The software allows users to pre-program their protocols.*

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**BAYER IN RADIOLGY**

Bayer’s Radiology Division is a world-leading diagnostic imaging solutions provider. With the combined power of Bayer’s former Medrad and Diagnostic Imaging units, the Division transforms insight into innovation with the goal of enabling improved patient care in CT, MRI, PET and interventional studies. A comprehensive and continually evolving portfolio includes medical devices, contrast media, integrated dose-management software (radiation dose and contrast dose) and equipment service. Bayer customer solutions help healthcare teams meet the challenging needs of today’s radiology environment.