

Make Every Study Exceptional

Delivering high image quality with lower dose

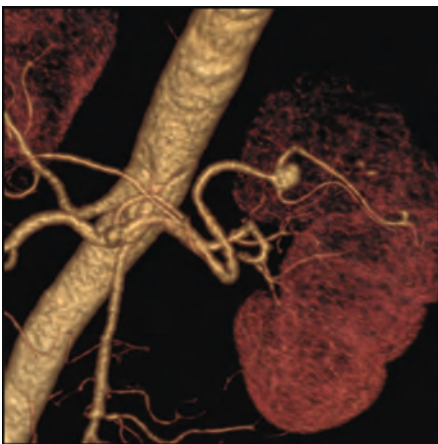


Figure 1. Excellent spatial resolution obtained at high acquisition speed allows depiction of the aneurysm on left renal artery (35 cm coverage in 5 sec/1.75 Pitch/5.5 mSv [obtained by EUR-16262 EN, using an adult chest factor of 0.015]).

Toulouse, France, is renowned as a city on the cutting edge of European technology. As such, it is appropriate that Joseph Ducuing Hospital, located near the center of the city, is one of the first hospitals to install the BrightSpeed® Elite with ASiR™—a compact CT with advanced technology inside.

The hospital's mission is to contribute to improving the health of the residents throughout the community. This is accomplished with a primary focus on quality across all care areas—the emergency room, surgery, maternity, endocrinology, a center dedicated to “rare illness,” and a center for tuberculosis assessments.

It is this focus on quality and patient outcomes that led Joseph Ducuing Hospital to select the BrightSpeed Elite CT system with ASiR. The hospital took great care in the decision to acquire this particular system, explains Cristian Livideanu, MD, a radiologist at the hospital. “Both referring physicians and patients are aware of the importance of dose in CT imaging,” he says. “The BrightSpeed Elite provides ASiR dose reduction technology and matches our requirement to fulfill the needs of the community.”

The hospital's initiative to reduce dose used a variety of methods, including the low dose features on the BrightSpeed Elite system, such as ASiR, and newly optimized protocols. During the first three months of scanning, nearly 900 patients have benefitted by lower dose.* The hospital has seen a decrease on average of 35% for brain exams, 50% for thorax exams, 40% for abdominal exams, and 70% for extremity studies—all while maintaining the image quality they needed for diagnosis.

Dr. Livideanu says that the local medical community has embraced the new ASiR technology and they have been referring CT patients to the BrightSpeed Elite CT system. “Since installing the BrightSpeed Elite, we've seen a significant percentage increase in patient referrals,” Dr. Livideanu says.

BrightSpeed Elite is a 16-slice CT with advanced technology inside—providing a remarkable balance between system design and speed of acquisition, reconstruction, and post-processing capabilities to deliver the clinical information in a short time. Thanks to this technology, Dr. Livideanu can perform high-quality CT studies at a reduced dose and maximize patient throughput.

He considers the system a workhorse CT that can be used for virtually any exam—from routine studies to emergency cases. Dr. Livideanu is most impressed with ASiR for reducing dose and attributes exam volume growth to this feature.

*In clinical practice, the use of ASiR may reduce CT patient dose depending on the clinical task, patient size, anatomical location and clinical practice. A consultation with a radiologist and a physicist should be made to determine the appropriate dose to obtain diagnostic image quality for the particular clinical task.

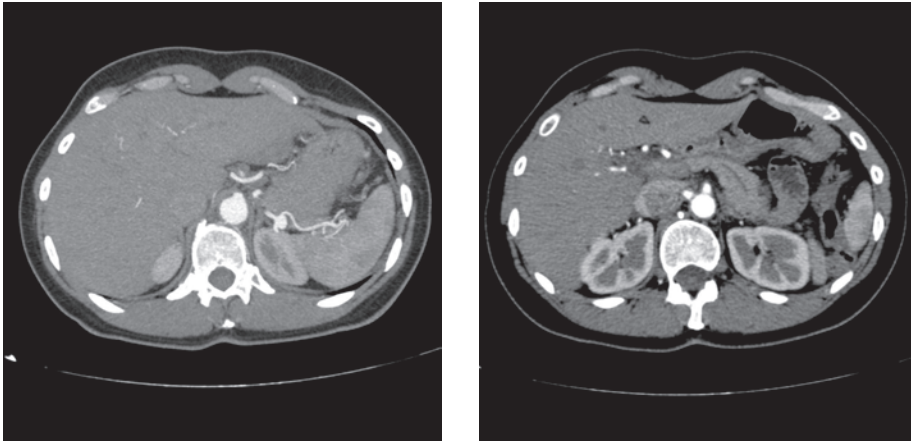


Figure 2. Multi-phase abdominal acquisition (120 kVp, 70 to 150 mAs).

The new CT is also faster than the hospital's previous 16-slice CT. "With a more robust acquisition, we can better manage the more difficult cases, such as apnea and pulmonary embolism," Dr. Livideanu adds. "The new post-processing tools—Lung VCAR*, Thoracic VCAR, Autobone, and VessellQ Xpress—help the radiologists streamline reading for faster report turn-around-times and provide accurate and clear assessment to the referring physicians, who also express their appreciation for the exceptional image quality."

Even with the additional software tools and features, the BrightSpeed Elite with ASiR was intuitive for the technologist to learn how to operate and the radiologist to best utilize the workstation. Within one week, the staff learned how to adapt the new technology for use in all applicable clinical cases.

Improving CT dose management can help maintain CT as a useful diagnostic imaging tool for radiologists, referring physicians, and patients, Dr. Livideanu says. He is pleased with the decision to be one of the first to select a new BrightSpeed system in France.

"I would recommend the BrightSpeed Elite system with ASiR because of the system's ability to enable dose reduction," he explains. "This system should be present in all regions of France and elsewhere."

Dr. Livideanu adds, "It is very amazing to see that we have conducted many CT exams with half the dose that we used on the same patient two years ago—and all without loss in diagnostic image quality." ■

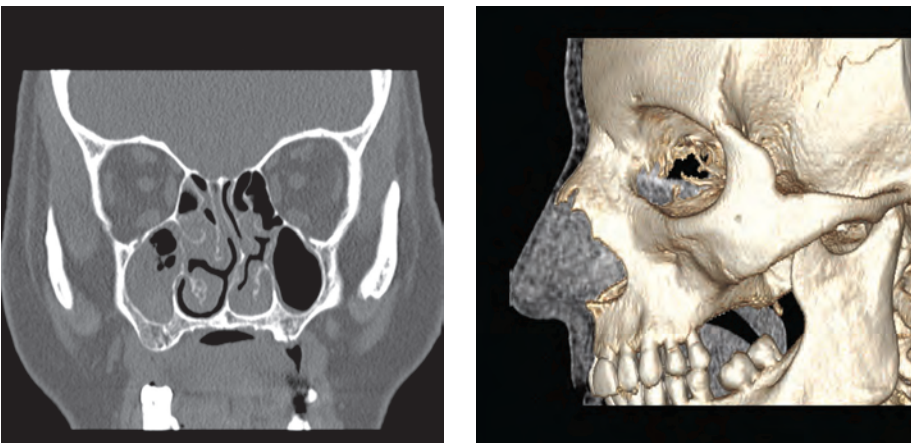


Figure 3. A low dose, 5 second acquisition on the sinus (120 kVp, 10 mAs, Pitch 1.375).



Dr. Cristian Livideanu

Cristian Livideanu, MD, is a radiologist at Joseph Ducuing Hospital in Toulouse, France, since 2008. In 2002, Dr Livideanu received his radiology degree in Romania where he also received the "Cum Laude" award at the Millénium Radiology Congress. His areas of interest include interventional radiology, vascular, ER radiology, and osteoarticular radiology.

About the facility

Joseph Ducuing Hospital, near the city center of Toulouse, France, is a nonprofit, public hospital that opened November 3, 1976. It actively participates in the social work of protecting and safeguarding the health of the population. The hospital's quality objectives and ethics are based on principles and values that aim to provide the best possible healthcare. Services include radiology, emergency room, infant care, surgery, and tuberculosis assessments.

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– Dr. Cristian Livideanu