Background

Located in Paris, The Saint Joseph Hospital Group is a private non-profit hospital. With a staff of more than 2100, the 613-bed hospital declares its mission to be focused on Patient Care, Support, Innovation and Training. Saint Joseph is highly touted for its focus on professionalism and working as a team to solve problems. In 2010, the hospital was certified by the National Authority for Health.

Situation

Saint Joseph radiology department has a dedicated staff putting its mission and values into action. In 2010, as Saint Joseph was restructuring its imaging department, one of its key objectives was to become a leader in dose monitoring and management. Dr. Marc Zins, head of medical imaging services at Saint Joseph created a dedicated dose team to focus on dose management. Specifically, the team was charged with lowering radiation dose delivered to patients and optimizing image quality. Zins and his team realized they needed a solution to help them achieve these goals.
Solution

As Zins and his team researched dose monitoring technologies, they were impressed by DoseWatch’s capabilities to track, monitor and report radiation dose. Key elements that were important were the ability to drive improvement across the organization, transparency of the data, and the ability to scale and sustain improvements continuously.

With those criteria in mind, Saint Joseph’s decided to pursue both a dose management process enabler and a technology solution. With GE Healthcare, they were able to purchase and install both: DoseWatch for tracking and analyzing dose and Adaptive Statistical Iterative Reconstruction (ASiR*), really the first innovation in CT Image reconstruction since the development of Filtered Back Projection. ASiR was implemented on the facility’s Optima* 660 CT and LightSpeed* VCT XT 64, and both CTs were connected to a DoseWatch server.

For improvements to be scalable and sustainable, it wasn’t enough to just implement a new technology, but to create a data process around which Saint Joseph’s employees could rally. To that end, Saint Joseph’s dose team worked with GE Healthcare’s applications team to create an entire implementation plan and Dose Excellence Program. This program included a three-day “kick-off” meeting with Saint Joseph’s newly appointed Dose Team for all technologists and radiologists. The meeting helped ensure all imaging department team members understood and bought into the organization’s vision for dose management. The team also received the training they needed on the software, dose level analysis techniques, and identification and analysis of outliers.

Results

The most quantifiable result for Dr. Zins and his team has been a decrease in dose variability and an overall reduction in the DLP across several specific studies.
In order to achieve longer term results, this provider has had to look beyond just technology and data, strategic planning and communication about the importance of dose monitoring and the hospital’s goals resulted in establishing an entire dose team highly committed to lowering dose for patients known as the Dose Excellence Program. Going forward, the dose team at Saint Joseph (including radiologist, operator, radiation safety officer, and department manager) has been initiated to:

- Monitor process justification of dose in CT acquisition rooms
- Meet monthly to develop quality culture for optimal dose
- Monitor the process of continuous improvement protocols
- Establish a process of detection and correction of occurrence of non-standard doses
- Provide good practice communication and analysis of areas to improve

Maryse Vettse, referring technologist at Saint Joseph quickly put DoseWatch and her new training to use. Shortly after implementation of the Dose Excellence Program, as Vettse reviewed prospective alerts on the worklist, she identified a patient planned for a new CT exam with a high cumulative dose. She explained, “Looking at the dose history, I detected a recent exam for an oncology check-up only two months earlier. I asked the radiologist to check with the referring physician if the new exam was really necessary, and it was determined that it was not.”

With DoseWatch and ASiR, the imaging staff at Saint Joseph believes they are well-positioned to achieve their goals and be a leader in dose management. Immediate access to information and easy to use reports help them achieve lower dose on individual patient exams and proactively identify opportunities for avoiding unnecessary exams.

About DoseWatch
DoseWatch is a dose management software that captures, tracks, and reports radiation dose at the patient level to help you optimize patient care. You can deliver the right dose by detecting the causes of excessive radiation and producing sharp and focused diagnostic images with the lowest possible exposure.

With GE Healthcare’s DoseWatch, you can:

- Analyze radiation data across modalities and devices.
- Identify and alleviate the causes of dose outliers
- Turn raw data into standards-based information

For more information on DoseWatch, visit www.doseoptimization.gehealthcare.com
About GE Healthcare
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