



Radiology clinics ease compliance, drive innovation with cloud-based data network

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—Robert Day, Chief Operating Officer, Zwanger – Pesiri Radiology

With 21 medical imaging clinics, Zwanger – Pesiri Radiology understands the clinical, compliance, and business challenges faced by modern healthcare organizations. The clinics adopted Microsoft Azure and the Siemens teamplay network to simplify compliance, refine imaging protocols, reduce business costs, and help control radiation exposure for patients. Now the company can develop more productive processes, deliver better patient outcomes, explore new opportunities, and help promote fundamental healthcare innovation.

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Zwanger - Pesiri Radiology

950 employees

www.zwangerpesiri.com

United States

Healthcare

Company profile

Zwanger – Pesiri Radiology provides medical imaging services such as ultrasound, nuclear medicine, mammography, MRI, and PET/CT scanning at 21 full-service locations on Long Island, New York.

Radiology, ultrasound, mammography, magnetic resonance imaging (MRI), and computed tomography (CT) scans are all bona fide miracles of medical technology that change lives—and save lives—every day. The miracles come at some cost, however. Many of these technologies can expose patients to significant levels of radiation. And while that risk can be controlled and is generally outweighed by the medical benefits, the high costs these very expensive technologies impose on the overall healthcare system cannot be mitigated so easily.

With 21 clinics offering a full scope of medical imaging services, Zwanger – Pesiri Radiology understands those costs too well. That’s why it uses Microsoft cloud services and the Siemens teamplay healthcare data network to fundamentally change the way it manages, monitors, and delivers services to patients.

Clinical, compliance, and business challenges

CT scanners and other medical imaging technologies do expose patients to varying levels of radiation, depending on the procedure, the scanner, and the technician. The risk is balanced by the diagnostic benefits of the scans, but clinicians agree that exposure should be minimized. US radiology clinics are required by law to manage radiation exposure and stay within standards set by the American College of Radiology (ACR).

“If we don’t record radiation doses, we risk over-radiating patients,” says Robert Day, Chief Operating Officer at Zwanger – Pesiri Radiology. “We could also lose ACR certification, and then the insurance companies would stop paying us.”

Zwanger – Pesiri technicians used to record the radiation dosage from a scanner manually and hand type it into the organization’s radiology information system. The process was difficult and time consuming, and it produced unreliable data. Because it didn’t aggregate data across time, locations, or machines, it established no useful benchmarks.

In addition to clinical and compliance challenges, Zwanger – Pesiri struggles like any business to control costs, streamline processes, and serve more patients. To help control overall healthcare costs, Zwanger – Pesiri wants to share information more easily with clinicians outside its practice, but only in environments that comply with the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and safeguard the confidentiality of patient health information.

“There is a tremendous potential for cost savings and enhanced patient care in radiology,” says Day. “If we can make information more transparent and share knowledge more broadly, we can cut out redundancies and avoid unnecessary procedures.”

Cloud-based healthcare collaboration

Zwanger – Pesiri has used Siemens medical imaging equipment for many years, so Day was interested when Siemens introduced him to the Siemens teamplay cloud-based healthcare data framework. Hosted on the Microsoft Azure cloud platform, teamplay helps healthcare professionals automate data collection, optimize workflows, lower costs, and collaborate with healthcare colleagues to improve patient outcomes.

Since March 2016, Zwanger – Pesiri has used the teamplay Dose module and Usage module to manage more than 50 MRI and CT scanners. It uses teamplay to automatically collect data directly from the imaging equipment without human interaction—or error. The data is streamed to HIPAA-compliant Azure datacenters in North America, Europe, and Asia, and sent to the teamplay global healthcare data network.

Where the cost savings are

Zwanger – Pesiri uses teamplay Dose to monitor and record the radiation exposure of every imaging procedure, set performance benchmarks, identify high and low outliers, revise protocols as necessary, and create documentation for auditors. Day uses the intuitive, straightforward teamplay Dose dashboard to review and analyze radiation exposure data across locations, machines, types of procedures, and individual technicians.

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“We’re using teamplay to simplify compliance, refine protocols, elevate staff knowledge, and help control radiation exposure for our patients,” says Day.

With a single click, Day can switch from teamplay Dose to the teamplay Usage dashboard where he can review scanner usage data for every location, machine, and procedure type. He can evaluate total number of procedures, time between patients, and average procedure time to help calculate usage efficiency for each machine and the entire fleet. “This is where the cost savings are,” says Day. “Using teamplay helps us build critical insights and efficiencies that drive down costs.”

Productive connections, better outcomes, and new opportunities

Zwanger – Pesiri intends to use the Azure-hosted teamplay network to connect with other clinicians in the region, across the country, and around the world to share knowledge and drive innovation. “With teamplay and Microsoft Azure, we have the potential to connect providers in a meaningful way,” says Day. “When we can benchmark against each other, we can collectively improve patient services, lower our costs, and stay in business.”

By automating the collection of deeper, more accurate data in real time, Zwanger – Pesiri has made it easier to meet its compliance requirements and lowered radiation exposure risks for its patients. Optimizing its processes also makes it easier and more convenient for patients to schedule and keep appointments. “As we increase efficiency across all our locations, people won’t wait as long for appointments and we can offer a better patient experience,” says Day.

Zwanger – Pesiri also plans to explore new marketing and revenue opportunities such as providing low-dose CT scans, conducting MRI scans in under 10 minutes, and including radiation dosages on radiology reports so that patients can monitor and control their own radiation exposure.

Lower costs, more revenue, and fundamental healthcare change

Optimizing its scanner usage and work flows gives Zwanger – Pesiri the opportunity to reduce its business costs, generate better returns on its imaging equipment investments, and increase patient throughput. “We serve an average of two patients an hour on the MRI scanners,” says Day. “Now we have the data we need to scan up to three patients an hour, which will increase revenue.”

When Zwanger – Pesiri connects with other providers to optimize usage across boundaries, it will help drive down overall healthcare costs. “If we can maximize imaging utilization across the healthcare landscape, everybody’s costs go down,” says Day. “We believe that the Siemens teamplay framework and Microsoft Azure platform offer the potential to fundamentally change the way healthcare services are delivered.”

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