Newsbytes

Sonora Quest Laboratories pulling paper processes

August 2020—At Sonora Quest Laboratories, working backward has been a key strategy for leaping forward. Little by little, the Arizona-based integrated laboratory system has been retracing paper trails and assessing established processes as part of an ambitious plan to eliminate paper use across its seven commercial laboratories, 28 hospital labs, and more than 75 patient service centers.

Sonora Quest's operational excellence, or OPEX, team undertook the project in 2018, says Jean Hammelev, vice president of operational excellence at Sonora Quest and Laboratory Sciences of Arizona. "We determined we had many opportunities to automate processes, reduce paper storage, and increase efficiencies," she says.

A catalyst for the project was Sonora Quest's plan to move its main laboratory, in Tempe, to a new building across the street, which occurred in June. The lab was eager to move toward paperless processes because of "how much stuff we had taking up space and inventory," says Matthew Reinhard, Six Sigma black belt and manager of performance excellence at Sonora Quest and Laboratory Sciences of Arizona, who is spearheading the initiative. Hammelev gave a presentation on the project at the 2019 Lab Quality Confab conference last fall, based on Reinhard's plan.

"In an integrated laboratory system like ours, processes extend well beyond the lab," says Reinhard, which is why, in addition to OPEX, the project is run by Six Sigma project leaders and staff in quality and regulatory management and information technology. Billing staff, senior leadership, and other employees have also contributed input.

Jean
Hammelev

The project team is using existing IT infrastructure and drawing on internal resources while occasionally querying Sonora Quest's parent companies, Quest Diagnostics and Banner Health, for guidance. And while they aren't on target to meet their original deadline, which required eliminating paper throughout the laboratory system in 2020, they have reduced hard copy paper storage by 85 percent. "When the goal was put forward, I don't think we understood the scope of true 'paperless' and what it entailed," says Reinhard.

In its effort to eliminate paper, the project team has "worked backwards," Reinhard explains, by running reports with Sonora's paper storage vendor to take inventory of every area of the integrated laboratory system that was sending paper to off-site storage and then reworking the corresponding processes to eliminate paper use.

But before taking this step, the OPEX team gained critical support for the initiative across Sonora Quest by demonstrating how a single process improvement reduced by half the integrated laboratory system's paper storage. At the time, Sonora Quest was scanning and storing 50,000 to 75,000 paper copies of requisitions per day. Some of the staff initially were in favor of keeping the redundant paper storage step because requisitions would occasionally get lost, Reinhard explains. And while the number of missing orders was very low using the paper-based process—"we were consistently at a five sigma or above"—the OPEX team wanted to prove that storing hard copies wasn't the solution.

Most of the missing requisitions, the team determined, were the result of problematic requisition processes in

which a document inadvertently was not printed or had disappeared prior to scanning. Less than one percent of missing requisitions were found in paper storage. These findings helped the team make its case for its paperless system, which "was very error-proof and had a low defect rate," says Reinhard. "We had a huge win right off the bat with that."

After the team's first success, Reinhard began collaborating with specific areas of the integrated laboratory system to overhaul their paper processes. The work falls into two categories, he says. Some processes have been fully automated, which means documents are auto-generated, or data from cloud-based faxes, emails, and DocuSign are saved automatically via an email-capture system and imported into virtual filing cabinets, a workflow that Sonora Quest built in collaboration with the secure document-management vendor Freedom Imaging Systems. Other processes have been partially converted—that is, paper documents are generated but they are retained electronically rather than sent to off-site storage. These documents are sent to central scanning and imported into virtual filing cabinets using the same workflow established by FIS.

The latter may not seem "as big a win as making something completely paperless," Reinhard says, but it has made it easier to access documents it is required to keep for regulatory purposes. The FIS workflow also allows Sonora Quest to set retention periods automatically.

Matthew
Reinhard

Some areas of the laboratory system had infrastructure that was easily transitioned to a paperless workflow, continues Reinhard, while the OPEX team is still innovating others. One example of the former: For genetics testing prior authorizations, the billing team receives documents from many sources. "We approached each source and developed a method for each of them to become electronic," such as attaching documents to emails rather than using interoffice mail. "It seems so simple," says Reinhard, "but a lot of the time it is."

The project team also helped automate quality control documents for all laboratory departments. The QC documents are now reviewed and signed electronically using doPDF, a free software program that converts printable documents to PDFs. After review, documents are imported into a QC virtual filing cabinet and indexed by department, allowing staff from throughout the laboratory to easily access historical QC data.

Microbiology method and equipment validations too have been converted to paperless processes, Reinhard says. The team created a standard template in DocuSign that allows for entry of free text in lieu of drop-down indexing and that laboratory directors and others involved in the review process can sign electronically. Although the validations could be retained in DocuSign, they are being imported into a virtual filing cabinet to align with Sonora Quest's systemwide approach to document storage.

Throughout the project, OPEX has encouraged the laboratory's Six Sigma green belts, Lean practitioners, and frontline employees to identify paper-heavy processes and contact Six Sigma leaders to find paperless solutions. Laboratorians have been essential in developing paperless processes, Reinhard says, "particularly as we move into lower-volume processes in isolated pockets of our system," such as creating a virtual workflow for monthly maintenance logs for laboratory equipment.

While the OPEX team has pursued multiple projects simultaneously across Sonora Quest, it has replicated workflows wherever possible. The billing department, for example, collects missing information on clients using the same system that has been developed for laboratory departments—information is received via eFax, saved using

email capture, and retained in a virtual filing cabinet.

A similar process has eliminated paper standing orders at patient service centers. Orders that physicians once faxed to specific locations are now sent through a centralized fax line connected to an e-fax that can be accessed by any site. The data are retrieved via email capture and go into a FIS workflow to be placed on hold in a virtual filing cabinet. After patient testing is completed, the orders are exported into a requisition filing cabinet for retention. Sonora Quest patient service centers statewide can now access all patient orders at any time, Reinhard says.

"What we're trying to do," adds Hammelev, "is take the processes already developed and replicate them everywhere and anywhere we can before we start more projects." And while Sonora Quest is working with a number of vendors on the initiative, in the future, it hopes to partner with a company that "approaches paperless from a system level," Reinhard says, meaning "inputs, applications, and living documents would have a single retention space."

As the project has moved along, Reinhard notes, he has received greater numbers of requests for FIS and other paperless processes from management and frontline employees. This has been valuable, he adds, because "it's about engaging and breaking down silos across the board and finding the right contacts within each department."

To meet each department's needs, the OPEX team partners with IT. "We also include them intimately in the discovery process, as their knowledge of downstream processes for documents regarding reporting and cross application feeds is essential," Reinhard explains. "They're always onboard, they join the meetings, and they have great ideas." Consequently, the OPEX team and IT staff are addressing Sonora Quest's automation goals in collaboration with the IT consulting services vendor Disys by implementing robotic process automation in various areas of the integrated laboratory system. At CAP TODAY press time, the collaborators were also working on transitioning to intelligent process automation, which incorporates elements of machine learning into RPA.

As part of the RPA initiative, Sonora Quest and Disys have trained as "citizen bot developers" employees from operations, performance excellence, billing, and other departments within Sonora Quest. Training non-IT staff to assist with automation has helped move these types of initiatives forward at a more rapid pace, Hammelev says. This grassroots approach to training, Reinhard adds, has empowered "the boots on the ground" to identify good targets for RPA.

Working together, Sonora Quest and Disys have built 12 bots, many of which address billing operations, and are investigating the need for others. One of the bots, known as Billy, was developed to automate the insurance resubmission process to improve reimbursement collection. "RPA has created the capability to obtain lost revenue that we were previously unable to collect," Hammelev says. The other billing bots largely address missing information related to error reports. Because billing involves a good amount of manual labor, it has "low-hanging fruit for RPA," Reinhard adds.

Another bot codeveloped by Disys and Sonora Quest provides new employees with access to the software and hardware they need to do their jobs, such as access to the lab information system or anatomic pathology software. When supervisors request a new hire via Sonora Quest's electronic processes, they also flag a staff member who has access to the same technology the new employee will need. The bot, IT4U, then creates a new user in the system that mirrors the flagged employee's permissions, before the position is filled.

While developing the bots is serious business, naming them is not. Hammelev came up with the idea of having informal competitions to name the bots, Reinhard says. While they aren't meaningful from a programming perspective, the names allow the bots to be identified more easily and give bot developers a greater sense of ownership. And "it brings a little fun in," he says. Reinhard cites as an example an employee in human resources who worked on the front end of IT4U and now has an idea for an employee onboarding bot: "He wants to call it The Onboardinator."—*Charna Albert*

Proscia and Royal Philips create open digital pathology ecosystem

The artificial intelligence-enabled digital pathology company Proscia has announced that it is collaborating with Royal Philips on an open digital pathology ecosystem.

Under the arrangement, users of Proscia's Concentriq open digital pathology platform and AI modules can access the Philips Pathology SDK software development kit to incorporate Philips' iSyntax image format into Concentriq.

"Through our open digital pathology platform approach, we are pleased to provide Proscia with the Pathology SDK to empower laboratories to realize the full potential of digital pathology," said Nimish Parikh, head of product management for Philips Digital and Computational Pathology, in a press statement. "Laboratories can now view, manage, and analyze their iSyntax images alongside all of their other pathology data in Concentriq to eliminate silos, drive efficiencies, and unlock a wealth of new information."

Concentriq can be used to view, manage, and analyze whole slide images at an enterprise scale. It is interoperable with whole slide image scanners, laboratory information systems, and image analysis applications.

[Proscia](), 877-255-1341

New coalition advocates for stronger patient ID measures

Six health care organizations recently formed Patient ID Now, a national coalition committed to advancing a nationwide strategy to improve patient identification through changes to federal regulations and legislation.

Among the founding member organizations, which put forth their agenda at [www.patientidnow.org](), are the American College of Surgeons, American Health Information Management Association, College of Healthcare Information Management Executives, Healthcare Information and Management Systems Society, Intermountain Healthcare, and Premier Healthcare Alliance. Other members are 4Medica, NextGen Healthcare, NextGate, and the Joint Commission.

The coalition's efforts include lobbying the federal government to remove section 510 of the Departments of Labor, Health and Human Services, and Education, and Related Agencies Appropriations Act of 2020, which prohibits HHS from providing funding for a national patient identifier. Language blocking the creation of a national patient identifier has been included in every spending bill since 1999, despite the Health Insurance Portability and Accountability Act having called for the creation of a unique patient identifier in 1996.

"Despite the ban, the U.S. Department of Health and Human Services and other government agencies have, on occasion, opined on how to improve patient matching in health information exchange," according to a post on the Patient ID Now website.

The coalition asserts that narrow interpretation of the language in section 510 runs counter to a mandate in the HITECH Act for U.S. health care systems to adopt EHR and health information exchange functionality.

The Patient ID Now website provides a resource center that includes studies, reports, press releases, advocacy letters to the federal government, and other documents to support its mission. It also provides a link to obtain information on becoming a member.

Roche collaborates with Summit Cancer Centers

Roche has reported that it is working with the Spokane, Wash.-based Summit Cancer Centers network to explore the use of clinical decision support tools and artificial intelligence to manage the health information of cancer patients and provide more personalized care.

The initial phase of the collaboration will involve implementing Roche's Navify tumor board software to automatically pull relevant patient health data and other information from fragmented sources. This information will be used to compile a single, holistic patient dashboard to facilitate Summit's multidisciplinary tumor board

discussions. The cloud-based Navify software will be integrated with the OncoEMR electronic medical record system used throughout the Summit network so users can incorporate patient health information from the EMR in tumor board reviews.

As part of the collaboration, Summit will also investigate the use of several clinical decision support applications in the Navify portfolio. The integrated apps can provide oncology care teams with information about clinical guidelines, published studies, and clinical trials.

Summit has cancer treatment and imaging service centers throughout eastern Washington and Idaho.

[Roche](), 800-428-5076

Paige secures additional series B funding

The computational pathology company Paige recently announced that it has received $70 million in series B financing with the recent contribution of an additional $15 million from Goldman Sachs' merchant banking division and an additional $5 million from Healthcare Venture Partners. Goldman Sachs and Healthcare Venture Partners had previously contributed $5 million and $10 million, respectively.

Paige will apply the capital to improving pathology workflows for cancer and its work with biopharma companies to create custom diagnostic and clinical trial products, according to a press release from the company.

The additional funding brings Paige's total capital raised to more than $95 million. The firm is a spin-off of Memorial Sloan Kettering Cancer Center.

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