

Health Management Technology

WHAT WORKS: SCANNERS

Scanning the Future

Scanning and workflow software help a clinical lab access and process information in hours instead of days.

Paper is a way of life for most clinical laboratories, regardless of size or location. Physicians' test orders, patients' insurance cards and payers' claim forms are hard to escape. But that doesn't mean paper can't be managed—and it doesn't mean gains in office efficiencies are impossible either.

At our laboratory, Sonora Quest in Tempe, AZ, we haven't escaped paper—but we *have* adopted an automated workflow solution and a scanning solution that together have allowed us to abandon a paper-based process, and that has made a significant difference.

PROBLEM

Sonora Quest Laboratories processes about 9.1 million lab tests each year. We are a joint venture between Quest Diagnostics, a diagnostic testing lab, and Banner Health Systems, a healthcare system. We serve 5,000 Arizona-based clients including managed care organizations, physicians and hospitals.

Like most laboratories, we return completed lab tests to doctors within 24 hours. It's not unusual for laboratories to perform the majority of tests during second and third shifts so results can be returned to physicians quickly and in real time. It's also not unusual for a lab's billing personnel to arrive at work to face a fresh batch of new test results that must be processed and billed. While performing tests and delivering results is our mission, the process surrounding our mission was paper-based, and that was a serious problem for everyone—lab technicians, administrative staff and financial staff.

We process 34,000 lab tests a day, so our paper volume is high. We handle 30,000 documents a day and on Tuesdays, our peak day, 40,000 documents. Prior to adopting workflow and scanning solutions, everything we handled was paper, and most of it stayed paper. This included physician test orders and the paper lab requisitions that resulted from them, test results, patients'

insurance cards and information data sheets, claim forms and billing statements. We archived information on microfilm and subsequently adopted a CD imaging system for archiving, but we needed paper to queue patient data, and we still relied on manual indexing.

Although we can turn lab tests around in less than 24 hours, the processing of billing and claims transmittal wasn't always so predictable. Like most labs, we have tried to file claims within a 34- to 48-hour time span following test results, because payers impose time limits on initial filings—usually anywhere from 30 days to 120 days. But with a paper-based process, questions from payers might provoke an immediate time lag in the reimbursement cycle, since our billing staff was unable to access electronic files and provide immediate answers.

The bottom line was that anyone who had a question at any stage in the lab testing process—a customer service representative, a lab expert or a billing staff member—usually had to locate the patient's paper file which could be on anyone's desk, in the lab or at the billing department, to get a question answered.

SOLUTION

In late 2001, we decided to combine production level scanning with an automated workflow solution, to free ourselves of a debilitating paper-based process. We selected Freedom Imaging's Record Image and Capture Retrieval (RICAR) Workflow system and Bell & Howell Copiscan® 8000 Plus series scanners. With this combination, we have gained efficiencies that we could not have gained with scan-

ners or workflow software alone.

One of the reasons we chose the Bell & Howell scanners was because they include VirtualReScan™ technology image enhancement from Kofax. This feature includes an "intelligent monitoring agent" that checks image quality and rejects documents that fall below a preset level. The scanners also automatically

SOURCE

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PRODUCT/COMPANY

Copiscan® 8000 Plus Scanners
Bell & Howell
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BELL + HOWELL

troubleshoot problems such as multi-feeds and paper jams.

Quality is important to us. Because labs often use a variety of document and paper types, the quality of scanning may be questionable. Bell & Howell customized the paper rollers on our scanners to accommodate a variety of paper types, especially NCR paper, since we use it often and it can cause paper rollers to swell, resulting in jams or double feeds.

The scanners can run all day and handle mixed paper sizes and lengths. The automatic feed self-adjusts to accommodate various thicknesses and the exit tray accommodates various document sizes. User operation is easy for us, with three buttons that set the scanners for most common administrative tasks.

RESULTS

Today, physicians' bar coded paper test orders are scanned into the system upon receipt, and they become electronic requisitions. The bar code on the paper requisition is read by the RICAR software which combines information received from the laboratory information system to create

an index of both the patient's name and the unique accession number for retrieval purposes. The electronic image of the requisition is accessible throughout the lab by pulling up the scanned images on any computer screen. Using the RICAR Workflow software, all requisitions go to the billing department and are sorted into work queues for additional data entry of patient demographics. Once data entry has been completed, the appropriate party can be billed.

When a lab test is complete, the lab information system sends patient data to the billing department for processing.

Our billing software allows billing personnel to create either an electronic claim or a paper claim. To answer billing and financial questions, billing personnel can enter an accession number and produce a split screen with the requisition image on one side and significant patient information on the other.

At the same time, the workflow software allows lab management to secure requisitions and to control who has access to specific patient information and under what circumstances. It also includes

troubleshooting features that can resolve incomplete or problematic requisitions and can monitor requisition processing speed.

The combination of production scanning with workflow software has helped us reduce a five-person scanning team working 24 hours in three shifts to two full-time employees working a single eight-hour shift.

Within a four-hour span, electronic requisition information is now available to lab experts, the billing department and customer service representatives. We have eliminated the need to locate paper files to answer test-related or administrative questions. Information necessary to answer payer questions can be accessed from any computer by billing staff.

David Gillis, vice president of Freedom Imaging, has estimated that only 30 percent of clinical labs use document imaging systems and only 5 percent use workflow software—and that the rest use paper and/or microfilm systems. At Sonora Quest, we combined both solutions to reduce our labor costs and to provide immediate access to information for lab experts, billing staff and customer service reps.

HMT

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