

# Positive Productivity, Better Billing

Workflow software provides the right communication solution for hospital specialists—and delivers an unexpected financial boost too.

By Neil Stollman, M.D., and Kathleen Matthews

**B**eyond the center-stage portion of its mission statement—delivering quality care to its patient population—every hospital must manage the clinical communication challenges and administration requirements that support its mission.

Without streamlined and automated communication among clinicians, the best specialists are inefficient and referring physicians are frustrated. Without accurate coding and billing, no hospital can afford to provide treatment for very long. Without precise data capture and meaningful data manipulation, coding, billing, reimbursement and quality improvement remain difficult.

During the past three years, our hospital has confronted all these issues and addressed them with information technology that has yielded the desired results while improving provider satisfaction.

## Making Technology Count

San Francisco General Hospital (SFGH) has served all residents of San Francisco, and especially the underserved, for more than a century. A county hospital and the region's Level I trauma center, SFGH is a teaching facility for the University of California-San Francisco (UCSF), which provides staff to the hospital. With 450 beds, the hospital serves about 88,000 patients annually, many of whom are

low-income from economically distressed neighborhoods.

In the gastroenterology division, we have six full-time physicians, one physician assistant and up to six part-time physicians working in four procedure rooms, and availability of a travel cart to perform endoscopic procedures in other hospital units, such as intensive care. We perform about 2,500 procedures annually.

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But we represent much more than these providers. As the referral site for 12 health centers within the SFGH network, we link to about 500 referring physicians. Communication between SFGH specialists and referring physicians is constant and critical.



San Francisco General Hospital has an electronic medical record system, the Lifetime Clinical Record (LCR), from Shared Medical Systems or SMS (now Siemens). But the hospital lacked a vehicle to automate production of procedure notes that could be electronically created, signed and made available to hospital physicians and referring physicians in outlying clinics through an LCR interface.

In the late 1990s, SFGH physicians *did* use an automated documentation system—but one that didn't meet Y2K compliance requirements. More significantly, the system didn't interface to the electronic patient record, and it scored low on user-friendliness. In exploring options for new software, these three factors remained key. In fact, improving clinical communications with referring physicians was our top priority.

We selected ProVation MD™ from Minneapolis-based ProVation Medical Inc. because it was user-friendly and ProVation would support an interface to the LCR. Also, the product offered a more extensive set of standard reports and

flexible reporting tools than other software we considered.

In October 1999, we deployed ProVation MD version 2.1, interfacing the software to the hospital's LCR. In mid-2000, we added the coding module, and earlier this year we upgraded to version 3.0. As budget allows, we hope to add scheduling and billing modules in the future.

ProVation MD enables physicians to create and electronically sign a procedure report and referral letter at the end of the procedure. It automatically embeds color images captured during the procedure into the documentation. Its coding engine keys directly off captured clinical data to assign proper procedure codes. Interfaces can automatically direct the report and

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codes to medical records, and physicians' offices can immediately access results online.

A dedicated server on SFGH's network houses the software. PC users at UCSF access the server through client software loaded on each PC, while patient data from ProVation MD remains on the hospital server.

#### Clinical Workflow Benefits

First and foremost, physicians can produce electronic procedure notes immediately following procedures that are subsequently available to hospital and/or referring physicians through the LCR interface. The software has alleviated frustration experienced by hospital specialists who had access to an electronic patient record but couldn't use it to communicate with referring physicians.

Today, all 2,500 annual procedures go through ProVation MD. Once a day we download data to the hospital medical record, making it available to hospital staff and to outlying clinics. When a patient returns to his referring physician for follow-up, that physician knows exactly what was

## Workflow and Patient-provider E-mail Communications

By Patrick Cline

E-mail inherently saves time. Or does it? As more and more physicians communicate with patients via e-mail, they will undoubtedly gain efficiencies by minimizing non-essential office visits and phone calls, strengthening follow-up efforts and providing patients with trusted content to improve their health and wellness.

But many physicians are concerned that e-mail is yet another outlet for increased liability—even if they are compensated for the time they spend communicating via electronically. A properly documented patient chart contains a record of each and every correspondence. For physician offices that must print every e-mail and its respective responses, and subsequently add them to patients' medical records, the implications on the internal workflow of the practice are daunting.

Where does the IT director's or office manager's responsibility begin and end in this debate? If the practice wants the ability to communicate electronically with patients, then the IT director or office manager has the clear responsibility of implementing the necessary infrastructure to make that happen.

This infrastructure must be capable of handling secure, authenticated communications with reliable service at an affordable price. More importantly, the IT decision maker also needs to bear the downstream workflow issues. Physicians, or any other staff member, must be able to simply and electronically attach any e-

mail correspondence to an electronic patient record, whether the communication is from a patient, a referring physician or an insurance carrier. This ensures that the patient record is complete at all times and that any correspondence can be tracked quickly and reliably.

Many electronic medical records systems fall short when it comes to workflow improvement. Many don't offer the ability to electronically attach e-mail to a patient's chart. This lack of certain fundamental workflow features in medical records systems is a contributor to the difficulty electronic medical records systems have had in gaining widespread acceptance.

If practices embrace e-mail communication, and then encounter the clog in workflow that results from having to continually navigate between electronic communication and the printing and cross-filing of paper documentation, there is a high probability they will abandon e-mail and will revert to a "schedule-an-appointment-if-you-want-to-see-the-doctor" mentality. With all the great technology available today, the healthcare industry has an opportunity to erase years of laggard status when it comes to technological prowess. That can only happen when workflow and technology are inextricably joined.

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## WORKFLOW AUTOMATION

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done, and what our comments and assessments were.

We have eliminated dictation and transcription from our department, removing the resultant burden placed on specialists to correct notes, collect and assemble data by hand, and subsequently ensure that complete patient data was returned to the referring physician.

Today, the majority of procedure reports are finished within two minutes, whereas before they might have taken five or 10 minutes each. Saving time wasn't an original goal—communication was—but time saved can be immediately put toward spending more time with the patient and family.

Availability of digital imagery is an excellent teaching tool. We have a database of visual findings and instant access to 20, 30 or more images to support a lecture, images that are easily exportable from the image database to PowerPoint slides.

Similarly, the system supports the hospital's quality analysis and improvement efforts, and the regulatory mandate that we measure the quality of care we provide. It assists us in examining quality markers and in completing practice and productivity comparisons within our physician panel.

### Administrative Advantages

The administrative backbone that sustains the provision of patient care is another beneficiary of the ProVation MD system. Although we still deliver paper to the billing department, now we deliver it once, right and inclusively.

With automated documentation, coding and electronic signatures, we capture the entirety of services provided in a procedure for billing purposes. We have eliminated the paper chase that occurred following each procedure to assemble the notes, transcription

and support documentation necessary to create invoices. Equally important, the integrated coding engine provides precise codes for accurate invoices.

Before ProVation MD, internal tracking of procedures and the subsequent tracking of those that had been sent for billing depended on an extensive paper trail and personal oversight by a small ad-

Without precise data capture and meaningful data manipulation, coding, billing, reimbursement and quality improvement remain difficult.

ministrative staff. We have eliminated that. The system tracks all screenings and procedures, the completion of all documentation, and availability of that documentation for billing.

The system's standard reporting capability has met the department's requirements. We have automated access to weekly reports per physician for the number and nature of procedures performed, and verification of completed and electronically signed reports, plus the billing status of each procedure. We can easily conduct quarterly, semi-annual and annual comparisons, and we can track physician and/or department productivity as often as necessary.

### Bottom Line Influence

For many hospitals, electronic data capture and precise coding generate expectations of increased reimbursement and net revenue gains. For a county hospital, that's not always the case. The payers, payment structures and payment processes remain es-

entially static and predefined.

However, San Francisco General Hospital was pleased to measure financial results that were favorably influenced by ProVation MD. With a fiscal year that runs July through June, we compared billings from a 12-month period in 1999-2000 to the same period in 2000-2001. Overall, the volume of procedures performed remained roughly the same, but GI fee billings increased by 22 percent, and the average amount billed per procedure increased 33 percent for the same periods. Actual reimbursements received rose by roughly 50 percent.

For SFGH, one of the best parts of this arrangement is that we have no customer service issues—in fact, just the opposite. When we call ProVation Medical, we are never put on “music-hold.” If they can't answer our questions on the spot, they get back to us within half an hour. In an era when even the closest business partners are relegated to automated voice menus, we find that kind of customer attention reaffirming.

As a teaching facility, we recognize the significance of a vendor that listens to customers and constructively uses the input to shape future versions of its product. Not to do so would be to waste a free panel of professional consultants. That's not the case here. We know that sometime in the future, when ProVation releases version 6.0 or 7.0 of this product, the feedback we offer today will be visible in that version.

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