

Raymond D. Aller, MD, and Hal Weiner

From pathologist to IT professional: a telling of five tales

Many people wear more than one hat in life, but rarely are they employed as both a hospital's pathologist and information technology professional—consecutively or simultaneously. Only a select group has donned both chapeaux.

So what drives the rare breed of pathologist who plunges into IT? "To me it was a survival issue for the laboratories," says Bryan Wolf, MD, PhD, chief information officer and senior vice president for information services at The Children's Hospital of Philadelphia. "When I became chairman of pathology in 2001, it became very clear to me that we could have the best laboratory, but if we didn't get our results to the right person, it didn't matter how good we were. So I started spending a lot of time just trying to understand what happens to the results when they leave the lab."

Dr. Wolf initially chaired a medical staff committee with IT oversight. When the hospital's CIO left in 2008, the CEO approached Dr. Wolf about assuming the position. "I thought they were crazy," he says with a laugh. "I love pathology. I thought I would finish my career as a pathologist. But I realized I could actually have a bigger impact on the hospital and on patients than even as head of pathology, because I could touch more aspects of the institution."

Except for a nine-month period in 2012, when Dr. Wolf had to serve as both CIO and interim pathologist-in-chief, his IT position has required 100 percent of his time.

Once ensconced as CIO, Dr. Wolf undertook a top-to-bottom turnaround of the IT operation, building a new leadership team and "bringing it into alignment with the nurses, the docs, the business side, and then fixing a whole host of issues within the department." He now oversees a staff of 500 and a budget of \$130 million.

When the decision was made to replace the LIS, he says, "we went through the process together with the pathologists and laboratory directors. We agreed on the RFP, interviewed vendors, made site visits, and decided together [on a system]. You never want IT to dictate to the users what they want."

At the University of Washington School of Medicine, staff benefit from the expertise of two pathologists turned executive IT professionals. James S. Fine, MD, MS, and David Chou, MD, MS, studied pathology and health informatics through a National Library of Medicine fellowship in the mid-1970s. Dr. Fine is now professor and chairman of laboratory medicine at the medical school and chief information officer for UW Medicine Health System, which owns and operates four hospitals, a network of outpatient clinics, a physician group, and an air ambulance services company. Dr. Chou, recruited by Dr. Fine in 1998, is professor and director of informatics in the department of laboratory medicine, chief technology officer of information technology services, and director of point-of-care testing and phlebotomy services.

"There's a handful of us [from the NLM fellowship program] scattered around the country," says Dr. Fine. "We were early in the computer business because we were quantitative people who had some interest in computers and their application in medicine." Dr. Chou says he "fooled around" with computers in high school and "couldn't pass up the computer science side" when the NLM fellowship became available. That said, both maintain they would have been "perfectly happy" staying in laboratory medicine full time.

With an IT staff of more than 500, the two are now fully engaged in meeting meaningful use criteria, preparing for ICD-10, and completing the EMR system implementation of the last 80 of the health care system's more than 110 outpatient clinics.

Having two pathologists highly placed within the central IT hierarchy ensures the lab can maintain control over its own systems, says Dr. Fine. “The basic operations and workflow are highly specialized in departments like lab medicine, pathology, radiology, and radiation oncology, and centralized systems can’t be expected to give the same level of support and attention that is needed for departmental systems,” he notes. “But departmental systems have to be good citizens; they have to do everything that’s necessary to synchronize with the larger enterprise systems—the EMRs, billing, etc.”

One example of the need for coordination, says Dr. Chou, occurred when IT staff in laboratory medicine spent two years working on aligning the order screens and order preferences for the new central EMR systems. “The lab knew what the order screens should look like, so if you weren’t watching continuously from the lab side, you wouldn’t know that the test definitions didn’t match the orders, and so on.”

But the greatest value he and Dr. Fine bring to their jobs, says Dr. Chou, “is just getting people to work together. In the end it’s a lot of compromises.”

Like Dr. Chou, James Madory, DO, medical director of laboratory informatics at the Medical University of South Carolina, Charleston, started out as a “techie,” moved to medicine, and then married the two. He launched a small company while an undergraduate in college, building PCs and designing software for medical students.

“Most of what I’ve learned has been self-taught by doing,” he says. “And a lot of it’s been by trial and error. I’ve been a programmer for years, and I’ve come up with what I think are some very good ideas, and I’ve also learned a lot by breaking code and having to rebuild it from scratch.”

But Dr. Madory, unlike some of his peers who pursued IT, has kept a foot in each camp, balancing his duties as a pathologist with his IT responsibilities. Dr. Madory and a laboratory information services team of 11 work with the hospital IT staff to ensure that “when data comes across from the hospital EMR, all the results get back correctly and efficiently to the clinicians who have ordered the tests. I act as a translator; I speak computer and I speak pathology.”

Time constraints, however, make performing both functions a challenge, Dr. Madory says, “and you really have to have an understanding chair [person] who appreciates the value of having someone in IT. Because when it comes to billables for IT, there are none. The value is in making IT more user-friendly for the other pathologists so they can get more work done more efficiently.”

“It’s a bit of a juggling act,” concurs Keith J. Kaplan, MD, pathologist and CIO of the Carolinas Pathology Group. “There are always cases that follow you, so even when you’re not technically on service you still have obligations towards those patients. Meanwhile, your systems need to be running 24/7/365 with 99.999 percent reliability. You can never shut off the IT.”

Dr. Kaplan, who was recruited to the Charlotte, NC-based pathology group from the Mayo Clinic because of his informatics expertise, spends 50 percent of his time as an anatomic pathologist and 50 percent on IT responsibilities. “It takes a real hybrid individual to understand lab, specifically anatomic pathology, and IT,” he says. “They are very, very hard to come by. I think this group was visionary and proactive in terms of making investments in IT within the group.”

Carolinas Pathology Group employs 26 pathologists, who serve hospital systems in North and South Carolina, and includes a private outreach laboratory and a billing and management company. Dr. Kaplan applies his expertise to laboratory information system upgrades, digital imaging and digital pathology, billing and instrument interfaces, and synoptic reporting. He recently worked on implementing a new LIS for the private outreach lab, placing “a strong emphasis on EMR interfaces with our outreach clients because of the increased need to computerize physician order entry and deliver results electronically,” he explains.

Dr. Kaplan’s hands-on IT time for Carolinas Pathology’s outreach and billing entities is largely spent “talking to vendors, clients, and our hospital partners,” he says. “We’ve been going through extensive due diligence on

image-management solutions for whole slide imaging. On the horizon right now is more emphasis on billing, EMRs, and, to the degree that we can do so, digital pathology.”

“Where I find myself,” he adds, “is trying to bring forward the things that our department needs to the hospital.”
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