

LIS roundtable: The conversation continues—consolidation, IT labor force

December 2019—IT as it relates to laboratory consolidation and the labor supply for lab IT were some of what came up when CAP TODAY publisher Bob McGonnagle convened a panel in September to talk about laboratory information systems. [Part one of the discussion is in the November issue](#) (with the LIS product guide); part two begins here.

On the panel were J. Mark Tuthill, MD, of Henry Ford Health System, Curt Johnson of Orchard Software, Wally Soufi of NovoPath, Michelle Del Guercio of Sunquest Information Systems, Nick Trentadue of Epic, Sepehr Seyedzadeh of Siemens Healthineers, and Tony Barresi of Beckman Coulter.

We recently read a news release about the continuing consolidation of important laboratory systems within not-for-profit systems. South Bend Medical Foundation decided to sell its clinical laboratory operation to LabCorp. This is one of a number of large deals announced within the past year or so.

I mention this to underscore how much consolidation we're seeing of laboratories and of systems. We know already we have a lot of consolidation in instrument vendors, and we've seen a fair amount of consolidation among the IT vendors, particularly lab information system vendors. Michelle, how does this consolidation look from the perspective of Sunquest? If three or four hospitals decide to join in a system in a large geographical area, for example, certainly not all of them share the same LIS platform. I'm sure you get calls and questions about how to deal with multiple LISs in the various laboratories of the newly consolidated enterprises. Is that a typical question, and is there a typical, or in fact a not typical, response or action that you recommend?

Michelle Del Guercio, vice president of marketing, Sunquest Information Systems: To answer your first question, yes, it is something we see as the merger and acquisition trend continues. My response sounds like the same answer each time but it offers a very different result and outcome, and that is we do meet the customer where they are.

Sometimes it's a Sunquest LIS; sometimes it's not and instead it is ancillary components of what Sunquest offers. We meet the customer where they are and provide them with the tools with which they can continue to provide service to their physician community, either the internal affiliated physicians or the external outreach physicians, by getting those orders into the appropriate laboratory for testing. Whether the multiple different labs are sharing different test strategies and test dictionaries or if they're not, it's about allowing them to get those orders in without the chaos that might otherwise occur.

That's one of the key areas that seems to be a pain point for many of these organizations as they go through mergers and acquisitions. Not only are they dealing with the combining of various cultures from the different hospitals, but they have to deal with the different systems and the different processes associated with that. So we try to provide them with ways in which they can reduce the disruption from the interoperability of the systems.

Wally, what is your experience at NovoPath in this environment of consolidation of laboratories and the changes in pathology groups, most of which would be getting bigger and consolidating in ever greater geographic areas? How are you meeting that, and do you have a single answer or does it depend on the individual case you encounter?

Wally Soufi, chief executive officer, NovoPath: It is case by case. What typically drives the consolidation decision are the vision and priorities articulated by the combined entity. Unfortunately, lab needs don't usually figure prominently on the priorities list. That enterprisewide consolidation is going to continue for a while. However, lab leaders will realize soon enough that their workflow and business objectives are not a primary focus of the enterprisewide vendor. At that point, lab leaders will want to partner with LIS vendors that help them achieve their departmental goals.

Curt, you've spoken many times about the consolidation. Do you find the rate is increasing, and is that putting additional pressure on customers that then have a desire to standardize but in some cases may not have the capital or the cultural deftness to be able to do that across a consolidated system?

Curt Johnson, chief operating officer, Orchard Software: I'm not seeing consolidation pick up speed. What we are seeing is consolidation across broader areas of laboratory medicine. What I mean by that is large hospital organizations are merging, but they are also either merging or purchasing smaller hospital groups or they're buying physician practices. Consolidation across the laboratory medicine spectrum, I believe, is increasing. It does create opportunities. The workflow of a 500-bed hospital may not be the same as that of a 25-bed critical-access hospital. Looking at what might be best for a large organization takes time, and you have to be invested in understanding the clients to understand how you can integrate with other systems and what's best for the overall organization from an IT and a laboratory perspective. If it's hospital to hospital, it's typically going to be a full consolidation unless one is a very large academic center and one's a rural critical-access hospital. Then flexibility is needed.

When hospitals purchase physician groups, integration is a different issue because now you're talking about ambulatory care and different billing issues. If the clinics have laboratories and are doing their own testing, the workflow there is not the same as that of a hospital.

So where does that fall in the picture and how do you account for that? In any of these scenarios, point-of-care testing also has to play a role in where that testing is going to be done and what kind of systems are needed to integrate with it.

So communication is needed between the C-level suites of these organizations and the leaders of the laboratory—in consultation with the IT vendors and the personnel at the sites—to figure out what is going to have the greatest positive impact, not only on patient care but on the organization. When you figure that out, when the path forward is pretty straight and everyone seems to agree on it, you can proceed.

Do you find yourself at Orchard spending a lot of time helping to organize those discussions and set directions for those futures?

Curt Johnson (Orchard): Not as much as we would like. If you're not having conversations above the lab level, by the time you find out a consolidation or a merger is taking place, it's late. So you have to educate your clients within the laboratory to get involved with their executives and administration to understand where that health care system is headed and how the lab can benefit the whole organization. When those conversations take place and you're at the forefront of an organization, then you have a role and you're able to participate in a more positive manner.

When you find out after a consolidation has taken place, and they're contemplating changing to one system, and it may not be the one your lab is using, it's late at that point to try to get involved and make an impact. So it's critical for all laboratorians to understand their role within the ecosystem of their organization and how to work with executives to make sure they understand the value the laboratory is bringing and ask to provide input in those decisions.

Michelle, I'm sure you're largely in agreement with what Curt said. Would you care to add something in terms of how important it is for the laboratory to be at the table early?

Michelle Del Guercio (Sunquest): I definitely agree with what Curt has said. Often, historically, LIS vendor relationships have been within the laboratory. Our customers are asking us for help in how to get the lab into more of a strategic position within the organization and elevate it to a level of being involved in those discussions at the C-suite level. Lab leaders are looking for ways to do that. Historically they have not had the business training; they've very much been in the lab. Often, they don't know what to do, and so we are providing them guidance to get them to have those discussions, to collaborate with other departments, using lab data to show support for the

enterprise. We're starting to see that shift and helping them get through those discussions.

It's all very well for us to talk about these great plans, but we know we have great constraints in terms of a labor supply. In addition, we increasingly find that the laboratory itself has more limited IT staff time, money, and capability than it had in some years past because there's so much central IT that goes on in these large systems. Dr. Tuthill, can you comment on the state of play at Henry Ford of both topics: central IT control versus lab, and the impact of labor on anybody's desired lab operations?

J. Mark Tuthill, MD, division head, pathology informatics, Henry Ford Health System: I'll start with the central IT/local IT question and then talk about labor in general. One of the interesting things I have seen over my 20-year career in informatics is that there are oftentimes places where it's viewed that the local LIS team should be part of central IT. And that lab team is brought in and then, interestingly, it becomes utterly distracted with every other problem outside the laboratory. And so that team ends up getting put back in place in a laboratory. We've had good interaction with our central IT group, where we view ourselves as a peninsula of the IT team. But because we are funded by cost centers in the laboratory, our day-to-day focus is on laboratory issues.

We're often asked by central IT to address those laboratory issues when IT is strapped for labor to carry out other large projects. An interesting recent example was that all Windows servers on Windows 2008 had to be upgraded by January 2020 to a different version of that Windows server. If IT had to take care of all of the pathology servers, they would have never made it. They were highly reliant on our laboratory-based informatics team to carry out that work. Since that team knows the applications well, they were able to do that job relatively independently without depending on project managers from central IT. It always behooves the laboratory to have that dedicated staff within its walls.

In general, the labor force for IT has probably never been a safer job. There is so much work to be done, and it is so difficult to recruit talented people. Interestingly, it's even harder to recruit senior people because a lot of the folks who have come into these jobs have come into the industry relatively young. I have a relatively easy time bringing in junior informaticists, but I have a much harder time bringing in senior people who have had 10 to 15 years of experience because the labor market just hasn't existed that long and people have not had that length of career available to them. So it is a challenge. And when you get to nuanced areas like business analytics, these folks don't even exist yet. So if you want to hire someone to come in and be a data scientist or a data analyst, good luck finding that individual. It really is a safe place for someone to go into for their career.

Nick, I'd like you to speak to the same topic—centralized IT versus laboratory IT—and to talk a little about the labor force, for laboratories and for IT. I'm well aware that Verona, Wisconsin is this incredible story, as is the entirety of Epic. Still, I'd like you to talk about central IT versus IT with specific people dedicated to lab and to the labor that's needed to make any and all of this work optimally.

Nick Trentadue, product manager, Beaker, Epic: I agree with much of what Dr. Tuthill said, and he is in both worlds, using a different LIS but having Epic as the comprehensive EHR at Henry Ford. So we have groups that run the gamut from having lab-owned resources supporting Beaker, to groups that are almost all centralized. We see a bell-shaped curve type distribution.

Most commonly, we see groups consolidating on Epic as a single platform, not only for laboratory but also for the entire patient record for the organization. Those groups and, with Epic being an integrated system, the Beaker folks who work to support the lab are brought into some of those integrated decisions and changes so that we can use the lab data, use those results, and merge them into the greater workflow of those health care organizations. They do have exposure to some of the goals of the health system as they're using that common platform across the patient's touchpoints throughout the organization.

In terms of the talent that's out there, yes, there are quite a few IT people in Madison, Wisconsin. To Dr. Tuthill's point, with IT, we see a younger labor market excited about health care IT. But I have seen a lot of laboratorians,

whether they're early or late in their career, make the move into IT. They might be new to the IT side of things, but they're quite experienced in the laboratory and bring a wealth of knowledge about their organization over to IT. Having that operational experience is an important bridge to have. We see groups having a lot of success filling their IT team with laboratorians.

We know there are many people who started in the laboratory and who are important players in our LIS world. Sepehr and Tony, from your respective perches at Siemens and Beckman Coulter, do you find that your increasingly dedicated headcount to issues around IT, data management, and workflow management is a growing segment of the employed base?

Tony Barresi, senior marketing manager, workflow and automation business, Beckman Coulter: Yes, I would say from an investment standpoint, you're spot-on. And Sepehr put it well earlier when he mentioned that data is king (part one). We at Beckman Coulter understand that, believe in that, and are committed to delivering our customers greater insights through clinical informatics. You're seeing commensurate investment in technology and people related to data, data analytics, and how that can be leveraged to result in superior workflow and additional value delivery from the laboratory.

We have an entire approach that we are launching that is dedicated to workflow optimization achieved by networked combinations of our products. The underpinning of each combination is data management, data analytics, physical automation, and automation of data flow. To put a fine point on it, we are fully invested in what you've described, and it is reflected internally here.

Sepehr Seyedzadeh, senior director, global marketing and product management for automation and diagnostics IT, Siemens Healthineers: I echo that. As our products grow into different areas, like data analytics, we also need to grow our expertise in those areas. These people are hard to find. It's one thing to find IT qualified people who are good with coding and security and so on. It's a whole other ballgame to find people who are good clinical application specialists, people who can harness the power of IT for a clinical routine workflow. Even if we find very good people with IT expertise, we need to spend a lot of time educating them on the clinical aspects so they can be useful in deployment.

Wally, would you agree that this addition of the clinical insight into the IT makes some of the labor issues particularly challenging for you? Do you have that experience at NovoPath?

Wally Soufi (NovoPath): Yes, I agree with Sepehr. There is a clear distinction between somebody who is very good at IT and hardware, and, as Dr. Tuthill mentioned, upgrading servers and things like that, versus someone who is knowledgeable in the running of the LIS itself. However, with the shift to the cloud, the role of the IT specialist will eventually and naturally morph into an application or product specialist.

We have been successful in finding and training people who work well with us or for us. Clearly, there's a lot of competition for talent. We all see and share the same experiences when it comes to recruitment.

Michelle, I'd like to ask you to comment on the labor shortage and on the same question your colleagues have—on outfitting technically expert people with clinical insights so they can make an optimal contribution.

Michelle Del Guercio (Sunquest): Staffing is a huge pain point laboratories are facing and customers are expressing. We've talked to a number of customers that are using creative ways to engage more people to go into the laboratory space. The same customers are also encouraging those in the lab to move into the technology and IT side because having that balance is such a nice mix and helps to support the lab and the interoperability within the organization and beyond. So having that lab talent move forward is a bonus. But most definitely the labor shortage in the laboratory space is causing concern. Things like middleware and other rules and validations, and places where you can automate and trust that automation, are helping to counter that labor staffing shortage.

Curt, please speak to us about this same question, maybe leading with the problem of labor in the

laboratory because whether it's a laboratory person with a lot of IT expertise, or a general laboratory technologist or other, a shortage has to affect the entire operation. What are you seeing in some of the Orchard sites?

Curt Johnson (Orchard): Technology, from the diagnostic vendors and from IT, does a lot to offset the labor shortage, which I've heard about in the laboratory marketplace for more than 20 of my 31 years in the industry.

At one point in the late 1980s or early 1990s, you needed eight to 10 people to run a microbiology department. You needed 10 to 15 people to run the EIA part of the business. You now need two automation lines with some laboratory expertise. So you need the laboratory and the laboratory expertise, but over the years, automation has helped.

There will come a point, though, where you run out of being able to solve the problem with diagnostic equipment or the LIS. Are we reaching that point? Many people think we are. All of us in the laboratory industry are looking for the best and most experienced talent. For laboratory information specialists, at Orchard, we believe in taking the laboratorian and teaching the IT point of view. We have found it more critical and more important for our customers and our ability to continue to grow to have laboratorians who can learn the IT function than to try to find IT specialists and teach them the laboratory. To us, it's critical to have the laboratory knowledge.