

How Henry Ford core lab uses bottom-up communication

November 2018—When Henry Ford Health System started planning its core laboratory's automation line four years ago, aware that it needed to take Lean to the next level, it enlisted frontline laboratory employees in a development process that used the strategies of Hoshin Kanri and kaizen. In a presentation on applying predictive analytics to lab automation at the 2018 Executive War College conference and in a conversation with CAP TODAY, J. Mark Tuthill, MD, head of pathology informatics at Henry Ford, described how Hoshin Kanri and kaizen helped shape the health system's core lab automation line and are still being used today.

Lean, said Dr. Tuthill, is an approach "where you're really involving the people who do the deep work." One of the means to this end is a multi-step strategic planning process known as Hoshin Kanri, a component of which is the tool kaizen, a formal process that engages employees from all levels of a company in continuous improvement. The pathologists at Henry Ford use kaizens to involve workers in determining how complex problems should be tackled or new policies or processes deployed. "You do a kaizen because you want to transform the way that you are doing your work in a way that hasn't been done before," Dr. Tuthill said.

That's why, in 2014, the pathologists at Henry Ford began investigating the use of kaizens to execute the laboratory's plans to install a Beckman Coulter automation line. "Looking at how you're going to redesign your core lab from the ground up requires a very, very deep dive into the real day-to-day work that people do," Dr. Tuthill explained. At Henry Ford, that meant implementing a kaizen as a formalized four- or five-day process "where you literally lock 15 or 20 people in a room for eight hours a day. It doesn't help you to have [only] the administrators. You need the people who do the work. You take them off the bench, sit them down in a room, and pick their brains about how they actually do the work that they do. And it's fascinating because you learn all sorts of stuff that you didn't really know was happening in your laboratory."

Henry Ford's kaizen participants follow a charter that includes a set of agreed-upon goals and a list showing which topics are in and out of scope. As the kaizen proceeds, they develop action plans and prioritize the sequence of the work, using flip charts, sticky notes, and other office supplies to aid the communication process.

Through weekly action plan meetings and kaizens every six weeks, Henry Ford improved the efficiency of its automated core lab, which performs more than 70 percent of the health care system's laboratory testing, Dr. Tuthill said. "Each kaizen has three weeks of pre-work, which includes collecting data [about processes], charter creation, and arranging the appropriate team members," he explained. "Prior to implementation of the automation line, there were 52 days of kaizen and 15 kaizen events."

After the automation line went live in November 2016, "we realized that now we needed an analytic tool [within the pathology department's Sunquest lab information system] that would connect back to this amazing automated testing line that we implemented with Beckman," Dr. Tuthill said. The pathology informatics team once again turned to kaizens, with a representative from Sunquest participating. "This kaizen looked at what were the metrics that we could derive—what metrics would be most helpful for the staff running that automated core line. The work on that took almost a year," he added. "Then we did another kaizen that was much more oriented toward implementation of the behaviors, workflow scenarios, analytics scenarios that we had identified in the previous kaizen."

In the earlier kaizen, he continued, "we thought the most important thing was turnaround time reports because that's what all the senior managers use. But the med techs don't even see the turnaround time reports. They wanted to know how we could use the volume logs. They wanted better turnaround time outlier monitors, and they wanted us to fix workflow processes around critical value reporting because it has a deep impact on their work."

The core laboratory continues to use kaizens to improve processes for the automation line. "Of course, there are

open action items and past-due tasks,” said Dr. Tuthill. “But, remarkably, there are 231 completed actions that originated from the kaizen events and goals generated from the kaizens’ charters.” The “cool thing” about this bottom-up communication, added Dr. Tuthill, is that “leadership learns all this real stuff about the dirty laundry and how the laundromat actually works.”

To move ideas from the lab bench to leadership using kaizens, a pathology department first needs to embrace Lean culture, train staff in Lean terminology, and master smaller, simpler process-improvement methods, said Dr. Tuthill. “It’s the old story of, you crawl, then you walk, and if you try to run too early you fail. Once you have a relatively mature adoption of Lean, you can use the kaizen process to either tackle problems too complex for the quick process-improvement methods or to deploy something that is a completely new process for you.” Enlisting frontline workers to identify problems, and automatically capturing and tracking deviations, reveals “‘bad actors’ that start to become the targets for policy deployments using Hoshin Kanri and kaizen,” Dr. Tuthill added. “A perfect example is misidentified sample tubes coming from a location in the hospital. Pre-analytic processes are the origin of the majority of our deviations.”

Cultivating a Lean culture before using kaizens helps employees at all levels accept the disruption that they bring, said Dr. Tuthill. “What I have seen is that the front-end medical technologists, histotechnologists, and shift supervisors are all really engaged in the [kaizen] process, and they see benefit from previous experiences. I can’t think of anything that’s more invigorating to people who are doing lab testing than to have leadership invest in understanding how the day-to-day work is done and allowing frontline workers to lead the way forward.”

—Jan Bowers

Blood Bank Computer Systems enhances dashboard tool

Blood Bank Computer Systems has introduced ABO Pulse version 2.0.0, the latest release of its blood bank management dashboard.

The redesigned and rebranded tool for tracking and comparing key metrics has added more than 600 charts covering all areas of blood bank operations, including donor services, inventory management, and quality assurance, as well as laboratory and hospital services.

Other enhancements to the software include the ability to specify date ranges going back two years and add charts customized to users’ facilities.

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Seacoast incorporates new ABN report in lab systems

Seacoast Laboratory Data Systems has added a new order-entry ABN report to its SurroundLab Plus laboratory information system and SurroundLab system for outreach labs.

The advance beneficiary notice of noncoverage report is intended to help laboratories manage clients that continuously fail to provide the correct diagnosis code for tests that fall under the limited coverage policies for the payer. “By keeping a log of the ABN alerts provided during the order-entry process, SurroundLab is able to produce a detailed report that can be periodically reviewed and even supplied to clients for educational and training purposes,” the company reported on its website.

The ABN report parameters include date range, ordering-site selection, client selection, detail or summary formats, and three sorting options. The report may be printed and saved as a .csv file.

[Seacoast Laboratory Data Systems](#), 603-431-4114

Philips announces IntelliSite installation in Middle East

Royal Philips recently reported that Al Borg Medical Laboratories’ facility in Jeddah, Saudi Arabia, has adopted the

Philips IntelliSite pathology solution to digitize its process of examining patient tissue.

Al Borg is the largest chain of private laboratories in Saudi Arabia and the first in the Middle East to adopt IntelliSite.

[Royal Philips](#), 888-744-5477

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