COLLEGE of AMERICAN PATHOLOGISTS

How the Laboratory Drives Patient Satisfaction

EXPLORING WAYS THE LABORATORY CAN HELP MONITOR AND IMPROVE THE PATIENT EXPERIENCE

The medical laboratory is an ideal area to focus on quality and cost-improvement analysis through initiatives like proper test utilization and electronic health record (EHR) performance. Learn how the laboratories at City of Hope and Mayo Clinic are working with health care executives and other hospital staff to set the proper parameters to measure and enhance patient satisfaction and overall care.

To patients, the hospital laboratory is an invisible part of the large, complex organization that is the modern hospital. Still, they expect it to run efficiently and want to have a good experience with a blood draw or timely receipt of accurate test results. For hospitals and their laboratories, meeting those expectations requires a lot of behind-the-scenes work to ensure good communication and quality control.

> "Laboratory medicine and pathology touches patients in nearly every aspect of their care. The results are often key to the diagnosis and management of the patient."
>
> Ross Reichard, M.D., FCAP, vice chair of quality and associate chair of practice, Department of Laboratory Medicine and Pathology, Mayo Clinic, Rochester, Minn.

"Laboratory medicine and pathology touches patients in nearly every aspect of their care," notes pathologist Ross Reichard, M.D., FCAP, vice chair of quality and associate chair of practice in the department of laboratory medicine and pathology at the Mayo Clinic in Rochester, Minn. "The results are often key to the diagnosis and management of the patient."

Long waits, repeated blood draws and difficulty obtaining access to test results can have a negative impact on a patient's perception of his or her care, Reichard said during a March webinar on the laboratory's role in patient satisfaction, hosted by the American Hospital Association and the College of American Pathologists (CAP).

Mayo recognizes that patient satisfaction with laboratory and pathology services may come down to something as simple as how long someone has to wait to have blood drawn. Mayo maintains real-time monitoring of wait times for patients in its large, busy draw sites. The phlebotomists can watch a monitor that tracks how long each patient has waited since check-in. The staff can manage wait times by moving waiting patients to staff with capacity. "If one collection area realizes that another one is being overwhelmed and they're falling behind on their collection times, our staff can adjust real time appropriately," Reichard explains.

Mayo tracks metrics from its laboratory information system to keep on top of patient satisfaction. These include wait times for each outpatient collection area, with a goal of having 80 percent of patients called within 15 minutes to give their specimens.

Mayo Clinic Patient Satisfaction Survey

The person who collected my blood was:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Helpful	☐	☐	☐	☐	☐
Courteous	☐	☐	☐	☐	☐
Knowledgeable	☐	☐	☐	☐	☐
Professional	☐	☐	☐	☐	☐
Confident	☐	☐	☐	☐	☐

How long was your wait in line?
☐ Under 1 minute   ☐ 2–5 minutes   ☐ 6–10 minutes   ☐ Over 10 minutes

How long was your wait in the lobby?
☐ Under 15 minutes   ☐ 15–25 minutes   ☐ Over 25 minutes

Was your wait reasonable?   Was the work area organized and clean?   Was staff working their best to minimize your wait?
☐ Yes   ☐ No   ☐ Yes   ☐ No   ☐ Yes   ☐ No

Approximately what time were you at one of the lab areas? *(hh:mm)*
☐ am   ☐ pm

Is there anything we could do to improve your future visits?

The organization also uses patient-satisfaction surveys that are randomly distributed each quarter to laboratory patients, who are then asked to fill them out on the spot. Reichard said the paper surveys get much better response rates than online surveys. Patients are asked about the demeanor and professionalism of front-line staff, whether the work area is organized and clean and how long they waited. The patients' subjective sense of their wait time can be compared with the information system's tracking.

Along with a good in-person experience for the patient, Mayo also works to ensure high-quality test results that keep errors to a minimum. "I can't emphasize enough how important this infrastructure behind the scenes is to ensure that we have those results," Reichard said. "If those results are erroneous or have other issues, that can create significant patient care issues and obviously be a major dissatisfier for the patient."

Error management is maintained by the quality-management system unit within the laboratory medicine and pathology department. This unit tracks issues as simple as ensuring that accurate patient demographics are entered into the system and as complex as tracking down test results that are affected by a vendor's recall of a particular reagent.

Mayo Clinic focuses on reducing redraw rates

Among the many metrics the Mayo Clinic in Rochester, Minn., tracks is the number of blood draws that need to be redone. The monthly reports are produced for each collection area and listed both by reason and by the individual technician. Mayo's goal is to keep the redraw rate at 0.5 percent for adults, 1 percent for pediatrics and 2 percent in the emergency/trauma department. The reports are posted in each collection work unit without individuals' names and each technician receives his or her own statistics privately.

To keep the redraw rate consistent with goals, Mayo continually monitors the metrics and makes changes to processes. These include:

- Adding padding to pneumatic tubes to reduce damage to blood samples.

- Placing Microtainer tubes in small Styrofoam mailers to keep them from getting lost.

- Limiting the number of collections drawn from intravenous starts in emergency/trauma.

- Observing and retraining technicians with high redraw rates.

> "Patients really want to have a record of their test results, not just a verbal conversation or one printout they might lose. The challenge is to provide patients with medical information that is in context and understandable to avoid confusion or unnecessary anxiety."

Sue Chang, M.D., FCAP, assistant clinical professor and interim director of surgical pathology, Department of Pathology, City of Hope, Duarte, Calif.

THE LABORATORY'S ROLE IN CITY OF HOPE'S VALUE-BASED CARE INITIATIVE

The laboratory at City of Hope in Duarte, Calif., is an integral part of organizationwide quality-improvement initiatives that improve patient outcomes and satisfaction, said Sue Chang, M.D., FCAP, assistant clinical professor and interim director of surgical pathology, another speaker during the AHA/CAP webinar.

City of Hope has embarked on a physician-led initiative to improve value-based care that has wide-ranging goals to identify physician preferences and best practices to improve clinical, research, quality and financial outcomes, as well as the patient experience. The laboratory's core initiative is to improve the appropriate use of its tests. In a collaboration between infectious disease physicians and the microbiology laboratory, several overused tests were identified and removed from automatic ordering in a new EHR system [see City of Hope sidebar].

Other projects are also collaborative but more laboratory based — and ultimately have patients' needs in mind. For instance, because many City of Hope patients have serious and complex diseases and may also be enrolled in clinical trials, their tissue samples may be needed for multiple purposes, including molecular sequencing. Multiple departments have worked together to develop a molecular-testing algorithm; one goal is to ensure that enough tissue or DNA is left over to bank it for future research or trial participation. "There are so many different ways to … do things for patients to give them answers and to maybe help guide their care in the future," Chang said.

A project that affects patients more immediately was focused on reducing the wait for certain CT scans that require a current creatinine reading. The previous workflow would pull such a patient out of the radiology queue to take a blood draw and wait for the result. Often, that meant the patient had to reschedule the scan for another day and also may have to delay an infusion.

As an alternative, the laboratory offered a point-of-care creatinine test using a handheld device that uses a finger prick to obtain a blood sample. While it is more expensive per test ($6.40 vs. $1.50 for the blood draw), the new process is much faster and reduced the number of canceled radiology appointments and scheduling delays. It also saved the radiology department time and money, to the tune of approximately $750 to $2,000 per appointment. Chang called it "an elegant solution" that leveraged the laboratory to improve efficiency and patient experience.

Chang believes there is also opportunity in providing test results in the patient portal to gain ground on patient satisfaction and engagement. "Patients really want to have a record of their test results, not just a verbal conversation or one printout they might lose," she said. The challenge is to provide patients with medical information that is in context and understandable to avoid confusion or unnecessary anxiety, Chang said.

> "If laboratorians or the pathologists are at the table … having that conversation is the first step to getting us to work really well together."
>
> Sue Chang, M.D., FCAP, assistant clinical professor and interim director of surgical pathology, Department of Pathology, City of Hope, Duarte, Calif.

Statistics showed an increase in users who logged into MyCityofHope, the organization's patient access portal, over the last several months of 2018. They are seeking not just their test results or medical records, but also the opportunity to pay medical bills online. Many City of Hope patients are from out of state or even out of the country, so having the virtual connection is vital, she said.

Both Reichard and Chang emphasized the need for pathologists and laboratorians to work with other departments and hospital leaders to ensure that patient satisfaction efforts include how patients interact with the laboratory. "If laboratorians or the pathologists are at the table … having that conversation is the first step to getting us to work really well together," Chang said.

City of Hope improves laboratory-test utilization

The laboratory is an essential part of the physician-led, value-based care initiative being undertaken by the City of Hope, based in Duarte, Calif. The initiative has six sub-initiatives, one of which focuses on test utilization with a goal of reducing costs associated with laboratories and imaging.

The project focus was specifically on reducing unnecessary tests, starting with the Fungitell ß-D glucan assay test, Aspergillus test and 25-hydroxy vitamin D test. Clinicians could still order the fungal and Aspergillus assays when needed, but they were no longer placed at the top of the electronic health record's morning lab panel. The change led to a 43 percent reduction in the test for fungi (saving $77,220 per year) and a 30 percent reduction in Aspergillus testing (saving $3,864 per year).

The project also targeted vitamin D testing, automatically canceling the test order if one had been ordered for that patient within the previous six months. This change could save the organization $421,578 each year.

The laboratory department has identified 10 additional tests that can be switched so that clinicians have to order them rather than getting them automatically.

Test results a main reason for patient portal use

Information desired:	
81%	Tests being done/tests that have been done
64%	Details of the diagnosis
49%	Treatment plan
44%	Probable disease course and outcome
31%	Complications (side effects); quality of life
24%	General overview
23%	Details of hospital stay
12%	Administrative and insurance aspects

Lab test results not always easy to decipher

Record section	Easy	Neutral	Difficult
Lab test results	**51%**	**26%**	**23%**
Radiology reports	**45%**	**28%**	**27%**
Physician's notes	**36%**	**30%**	**34%**
Discharge summary	**63%**	**27%**	**10%**
Medications list	**80%**	**16%**	**4%**
Nurses' notes	**47%**	**21%**	**32%**

Source: Keselman, Alla et al. "Towards consumer-friendly PHRs: Patients' experience with reviewing their health records." AMIA Annual Symposium Proceedings Archive (2007) Oct 11:399-403. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2655877/pdf/amia-0399-s2007.pdf

About the College of American Pathologists

As the world's largest organization of board-certified pathologists and leading provider of laboratory accreditation and proficiency testing programs, the College of American Pathologists (CAP) serves patients, pathologists, and the public by fostering and advocating excellence in the practice of pathology and laboratory medicine worldwide.

College of American Pathologists
325 Waukegan Road
Northfield, IL 60093-2750
Phone: 800-323-4040
cap.org