Pathologists have a unique perspective that comes from their experience as both a physician and the leader of the medical laboratory. From this vantage point, they touch nearly every medical specialty and area of a hospital or health system and are able to identify areas of improvement when it comes to efficiency, safety and overall quality. Through programs that pathologists created and designed with the patient in mind, such as accreditation and external quality controls, pathologists work with system executives and administrators to mitigate risk and ensure patient satisfaction. While structure and processes are essential for efficient and cost-effective care, they ultimately help to ensure the highest-quality care for the patient. A group of pathologists and hospital administrators met at the annual American Hospital Association’s Leadership Summit to discuss how they can continue to work together to ensure quality as the health care field continues its transformation toward value-based care.
MODERATOR (Robert Kehoe, American Hospital Association): Let’s start by talking about your organization’s approach to achieving, maintaining and improving quality. What is your approach within your organizations? How are pathologists involved?

NANCY CASSAGNE (West Jefferson Medical Center): Our pathologists are active members of the medical staff. To that end, our medical director for our laboratory was the first chair of our Medical Staff Quality Committee. That’s important because pathology sees the entire spectrum of care and pathologists can bring a different perspective to the medical staff as a whole.

THOMAS LOREY, M.D. (Kaiser Permanente): Our pathologists serve on various hospital committees, including tissue and transfusion and quality management. We have an integrated lifetime medical record, but our pathologists are also on an integrated, document quality-management system. Kaiser has an active quality program that includes our clinical departments and laboratory services, allowing us to keep up to date and integrated with the clinical care for patients.

JACQUELINE ARAGON, R.N. (St. Joseph’s Hospital and Medical Center): Dignity Health has a service line quality composite throughout all of its hospitals. One area of focus is laboratory medicine. There is an administrative leader assigned to each area and they partner with the physicians to meet the relevant quality metrics. These groups look at the national benchmarks and compare them against current performance. We strive to be at the top percentile.

FRANK SCHNEIDER, M.D. (Emory University): One of the challenges with pathology is that we can pretty well control what goes on within the laboratory, but it’s difficult to control what happens outside our walls. It’s important for pathologists to be involved in quality-improvement initiatives. And it’s important for pathologists to collaborate with clinicians about issues that can impact the laboratory and improve patient care. We can’t emphasize enough how important it is to build relationships — putting a face to a name and having actual conversations with someone. It’s not always easy to do, but it’s important. It helps to build trust.

CASSAGNE: That relationship building is crucial.
MODERATOR: How has this evolved? How has it changed?

SCHNEIDER: It’s not something that starts the day you walk into the laboratory. But if you show engagement, you can establish trust very quickly. Obviously, it takes two sides. If you go to the playground and the other kid doesn’t want to play, you know you’re out of luck. But with most people it’s very easy to strike up collaboration.

LOREY: The field has evolved over the past 20 years. The pathologist used to focus on the laboratory and analytical aspects, but there’s been a shift. There are important quality considerations in the pre-analytical, analytical and post-analytical phases of testing. Our ability to monitor these areas, as well as partner with providers and patients, is something that’s continually evolving.

ARAGON: Our board is very active with quality and risk. We have a board committee for quality and patient safety and, for the past 10 years or so, there’s always been a pathologist who’s been a member. That’s been integral to our quality and patient-safety efforts. Pathologists have assisted with numerous process-improvement efforts, particularly around health care-associated infections. The laboratory has been instrumental in helping us to make changes to strive to get to zero. We’re happy with that.

EARLE COLLUM, M.D. (St. Joseph’s Hospital and Medical Center): In that same vein, one of the items that really stands out for us is testing for *Clostridium difficile*. Many of the hospitals within our system were conducting tests differently. We developed a single process and were able to get a better picture of what we were doing. This is so important for quality and patient safety and reducing health care-associated infections.

On another note, timeliness and proper specimen handling are important quality and patient-safety considerations. We noticed that urine samples were being rejected to test for urinary tract infections, potentially leading to the development of a preventable condition. It turns out that the samples were sitting out for too long and the laboratories sometimes incorrectly accepted the sample. The pre-analytical component is a vital thing to address.

Frank Schneider, M.D.
MODERATOR: What is the role of hospital executives and their engagement with pathologists on quality improvement initiatives?

CASSAGNE: We certainly track all quality issues that come from the laboratory. We are focusing on the notification of laboratory results pending when a patient has been discharged. That’s a big issue from both a patient satisfaction and patient-safety perspective. We need to figure out a way to make sure that we are circling back to the patient with the test results. It’s important, not only for patient satisfaction, but for patient quality outcomes. Our pathologists are working with us on a way to make sure those recordings are done timely so that we can take that action.

COLLUM: One area of focus for us is the standardization of massive transfusion protocols. Some of our smaller hospitals did not have protocols in place. This issue was raised during one of our laboratory council meetings and the council was able to work with these organizations to put the protocols in place. The smaller hospitals embraced the new process and it was heartening to see that we were doing work that made a difference.

LOREY: Getting back to the evolution of pathology, the emphasis used to be on cost per test in a laboratory budget. That’s evolved, and what has emerged is the idea of investing in laboratory pathology services to improve patient outcomes. If we utilize tests appropriately, and have guided test ordering and clinical decision support, the ability to decrease the diagnostic latency can move patients more quickly through the hospital.

Standardization is important. At Kaiser, for example, we emphasize the harmonization of laboratory-test values, such as liver enzymes, so that all of our patients and providers can track their results over time depending on when the test was done. Harmonization is critical. Today, that often requires standardization of the chemistry analyzer, wet chemistry versus dry chemistry and, perhaps less important, hematology.

ARAGON: I agree. We strive for consistency and standardization, and not just within Dignity Health but throughout the community. We have to have similar protocols; otherwise we face more risk and quality challenges.
The laboratory also has been a leader with regard to blood transfusions. The processes now in place make sure that patients receive the right unit of blood. The number of transfusion reactions in the U.S. has declined drastically over the past decades due, in part, to the efforts of the folks in the laboratory.

ARAGON: To Bruce’s point, when you really explain why you are doing something and bring it back to the patient, you receive buy-in. That’s what we are all about — safe patient care. The laboratory has been a leader in that, and a great partner for us. At Dignity Health, we are transparent. If there is an issue involving patient care, we let the patient or family know within the hour if something wasn’t right. We explain what happened to the best of our ability and provide them with a contact should they have further concerns or questions. Throughout the years, if we’ve ever had a disclosure or just a concern regarding a test, Dr. Collum, or one of his partners, has been there at my side while we discuss the issue with the patient or family. Having that partnership with administration, and proactively partnering with clinicians, helps to ease issues and concerns.

SCHNEIDER: The message that I would deliver to my C-suite is that risk management, or risk mitigation, doesn’t start or should not start with a sentinel event. With a recorded event, you are reactive. It does help to prevent anything similar from happening in the future, of course. But pathologists are abstract thinkers; there’s a lot we can contribute. You could take any pathologist and put him or her into any nursing unit, operating room or outpatient clinic, and he or she could develop a process map and point out the risk points without ever having worked there. That skill is often left untouched.

COLLUM: At St. Joseph’s, as Nancy described, we have focused on relaying critical values post-discharge. If a patient has left the hospital or the emergency department and an important test result comes in, he or she needs to be contacted. That’s a serious risk to the hospital because there could be bad outcomes in situations in which the patient is unable to be reached.
MODERATOR: What role do process improvement and accreditation programs play in driving quality and safety within your organizations?

WILLIAMS: We’ve talked a bit today about quality controls in pre-analytical, analytical and post-analytical testing. Much of that work comes from the CAP and their laboratory improvement and accreditation programs. As stated before, if a specimen is not prepared correctly, you won’t get the right result. If the result is not given to the right patient, it could cause harm. It’s important for laboratories to participate in the accreditation program and to follow the new standards, which are updated once a year.

CASSAGNE: This may sound simplistic, but having that gold seal of approval with that accreditation is a big morale boost to the laboratory staff, as well as clinicians throughout the hospital. It’s a source of pride and trust.

COLLUM: The CAP’s accreditation programs also provide professional development opportunities. By participating in inspections of other organizations during the accreditation process, we learn best practices and we’re better laboratorians as a result. That’s a key component of CAP’s accreditation programs.

WILLIAMS: The CAP’s inspection program differs from other accreditation programs in that one laboratory is assigned to inspect another laboratory. By taking laboratory leaders and section chiefs from a laboratory, you get a thorough inspection. These leaders also share ideas and best practices. But the inspectors also learn new ideas and best practices from the organization they are inspecting. It’s mutually beneficial.

LOREY: All of our laboratories are accredited by the CAP and certification of the standards of ISO (International Organization for Standardization) 15189 [ISO 15189 specifies the quality management system requirements particular to medical laboratories]. That has a dramatic impact on our ability to motivate staff. It enables us to be proactive in quality improvement, efficiency and focusing on Lean processes. We’re able to reduce costs by adhering to the 15189 principles by ensuring that we order the correct test. Our front-line staff are good at identifying how to do things better, faster.

SCHNEIDER: I second that. There are two ways you can look at accreditation: It’s a mandatory component of a laboratory, but it’s also an opportunity. I think everyone around the table today sees it as an opportunity. Accreditation is for everyone. It’s really a uniting experience for the laboratory and the organization as a whole.
MODERATOR: For the pathologists at the table, how do you work with clinical colleagues and executives to initiate and maintain quality initiatives and to ensure accuracy and high customer satisfaction?

SCHNEIDER: Prior to recently joining Emory, I worked at Kaiser Permanente as a lung pathologist. I worked actively with the pulmonology groups in the area of interstitial lung disease. It is a devastating, progressive disease and many people cannot breathe after three to five years. There are new drugs available that cost about $100,000 per patient per year. Based on the prevalence data of idiopathic pulmonary fibrosis, or IPF, if you had 2 million patients in your health care system, you can probably expect about 1,200 IPF patients. The current literature indicates that about 10 percent of them are misdiagnosed. If we were to weed out the 10 percent of patients who receive the drug but don’t actually need it, we would save millions of dollars per year. We initiated a regionwide interstitial lung disease conference that reviews every patient who is receiving the drug, or is suspected of having the disease, to ensure an accurate diagnosis whether the drug is indicated or not.

LOREY: We have clinical liaisons with whom we work at our various medical centers. They are part of the subspecialty chief’s group that includes infectious disease, endocrinology and surgery. They spend a half day at the regional reference laboratory, along with clinical pathologists and laboratory staff, our laboratory directors, Ph.D. chemists and microbiologists. We talk about quality issues and we proactively partner with them to improve clinical utility and test utilization.

All of our 9,000 providers have no qualms about sending an email if they have an issue or concern. We have an automated “Send the Lab a Message” form that they can fill out. The message is sent to a pathologist in the quality group. The provider receives a tracking number and we try to get back to them the same day. That’s been effective.

WILLIAMS: One of the ways that pathologists are engaged with quality is in the care of individual patients who are diagnosed with cancer. The CAP has worked with the American College of Surgeons Commission on Cancer and other organizations to come up with a list of items that needed to be documented for each definitive cancer case. It’s called the cancer protocol. It’s really a team effort to get the right therapy to the right patient. But it all starts with the right diagnosis and then with the information about that diagnosis. For example, how large is the tumor to begin with and has it spread to the lymph nodes? Developing these cancer protocols and then mandating their use throughout the pathology world has enhanced the quality of care to patients with cancer.

When we instituted the cancer protocols at our hospital, it was met with some doubt. But now, it’s seen as one of the best things we’ve ever done. Our oncologists are supportive because they know where to go for...
can be helpful. A test result for liver function that’s slightly outside of the reference interval may mean nothing. But it costs a lot of money to explain that this is just a mild deviation completely within the limitation of health. Our ability to continually educate on the interpretation with clinical decision support is an enormous and ongoing effort.

CASSAGNE: Patients want accurate and timely results so that a diagnosis can be made and they can be treated properly. We have to make sure that administratively, on the front end, specimens are labeled properly. A few years ago, we went through a big initiative to reduce — or preferably eliminate — all mislabeled specimens because that’s waste.

ARAGON: We’ve done that, too, through the Lean process at the grass-roots level. They know what will work and what won’t work. You can sit in your office and design everything and it works just beautifully, but it doesn’t work on the floor.

COLLUM: I look for clinical colleagues who can serve as champions for any initiative organizationwide or departmentwide. I look for people who are influential. I speak with them one-on-one to see if he or she buys in to the concept, and then I attend their relevant meetings to start spreading the idea. The importance of breaking out of the laboratory and becoming more involved is essential.

LOREY: The ability of a provider to accurately interpret a result is often challenging. We utilize traditional reference intervals based on a theoretical normal healthy population. Our ability to provide a result, plus a standard deviation for measurement of uncertainty, can be helpful. A test result for liver function that’s slightly outside of the reference interval may mean nothing. But it costs a lot of money to explain that this is just a mild deviation completely within the limitation of health. Our ability to continually educate on the interpretation with clinical decision support is an enormous and ongoing effort.

By empowering patients, we achieve better outcomes. And we also see improvements in the patient experience.
them to request a particular phlebotomist if they have a favorite. It works wonderfully.

**WILLIAMS:** The laboratory is said to be involved in about 70 percent of all clinical decisions in the U.S. Laboratory results are important not only to organizations, but to the patients. Making test results available to patients has been a revolution for patient empowerment and their ability to understand their disease processes. For patients with chronic diseases like diabetes, knowing their values has changed how they look at health care.

**prioritization**

**MODERATOR:** Nancy, how does this fall in terms of priorities within your organization?

**CASSAGNE:** We actually think it’s crucial. There aren’t enough resources to do everything we need to do, but as Dr. Williams said, many things are centered around laboratory results. It’s crucial for our patients to be able to access their results in a timely manner. It’s the right thing to do.

**ARAGON:** By empowering patients, we achieve better outcomes. And we also see improvements in the patient experience. That’s a win-win for everybody. It supports the delivery of value-based care.

**SCHNEIDER:** There are many benefits, but also potential risks. Imagine a cancer patient whose laboratory tests are sent to a private laboratory that conducts molecular testing and when the results come back, no one actually knows what to do with them. That is a real risk. It’s up to us collaboratively to decide what test results we should share. We need to share appropriate information with patients.

**LOREY:** The provider who orders the test is responsible for the interpretation and acting on the result. We’ve found providers to be more reticent to order complex tests from outside laboratories if they do not fully understand the clinical validity of the test or how to manage the patient’s care based on the result.
The work of pathologists touches nearly all patient encounters. Pathologists play an important role in quality and safety initiatives by ensuring appropriate test utilization and delivering accurate test results to patients in a timely manner to ensure proper treatment.

With a focus on developing relationships with clinicians to build trust and support for clinical quality initiatives, hospital leaders and pathologists together can create opportunities for pathology's leadership and visibility throughout the organization.

Educating patients and families and sharing meaningful test results improves patient engagement and clinical outcomes.

I wish that everyone could have that kind of person in their organization.

LOREY: One way to enhance the dialogue between pathologists and administrators is to emphasize the aspects of laboratory that are critical to patient satisfaction. For example, for well patients who come in just once a year, we should make sure they aren’t waiting in line at the laboratory. And for ambulatory and inpatient services, the phlebotomy experience is critical if it is their one-time touch with the health care system. We also need to focus on turnaround time. Hospital care relies on timely laboratory testing; improving test turnaround supports efficient care.

WILLIAMS: The work of pathologists is tied directly to the hospital’s mission and vision. Our work is tied to quality and patient safety. And we are doing more to help the overall performance of the organization by focusing on appropriate test and blood utilization, for example. Overutilization adds unnecessary costs, especially as we shift toward value-based care. Eliminating unnecessary tests also has a positive effect on the patient and increases patient satisfaction.

We could benefit by working even more closely with our physician colleagues around test-ordering practices. The CAP is about to release new Lab Test Ordering Guides that will help both clinical partners and pathologists with test utilization. I don’t think it’s appropriate for pathologists to have to be on the tip of the spear telling other physicians what they can and can’t order. The chief medical officer should lead these efforts after all physicians concerned have reviewed them and agree to follow a variation of these protocols, which have been extensively researched.

LOREY: Technology is helping to eliminate duplicate orders and unnecessary tests. The EHR doesn’t allow providers to accidentally order a duplicate test. Transparency of provider laboratory test ordering patterns allows clinicians to compare their utilization with their peers. If they see that they are ordering more tests than their colleagues, they will be more careful in the future.

CASSAGNE: At my hospital, I find that having the pathologist visible is effective. We have to make sure that our laboratory personnel are out and about and that folks understand they are an intricate part of the hospital. To that end, we make sure that our pathologists are on our medical staff committees. They head important committees like medical staff quality and the credentialing process. Those are critically important to driving the importance of clinical laboratory results. I don’t go to my medical director of the laboratory just for laboratory issues. He is well-respected by the administration and the rest of the medical staff. I go to him as an elder statesman to bounce off ideas.
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 serves patients, pathologists and the public by fostering and advocating excellence in the practice of pathology and laboratory medicine worldwide. For more information, read the CAP Annual Report at cap.org.