

Lab gets a jump on pay-for-value world

Kevin B. O'Reilly

July 2014—Before the Affordable Care Act was passed, and before the notion of an ACO became a Medicare reality, Richard J. Cote, MD, was among those in medicine who saw the writing on the wall regarding health care payment.

Dr. Cote recalls his thinking as he joined the University of Miami Miller School of Medicine in 2009 to become chair of its Department of Pathology.

"President Obama had just been elected. There was a great push for creating a comprehensive health care system across the country to insure uninsured people," Dr. Cote tells CAP TODAY. "What was very clear to me, even before the ACA came into being, was that this push was going to accelerate the at-risk model of reimbursement and that there was also going to be very much a downward pressure on reimbursement for all medical services, including pathology, which we've clearly seen take place. And there was going to be a move to better coordinated management of care."

Dr. Cote and his laboratory colleagues at UM are preparing for this transition away from the traditional, and still predominant, fee-for-service payment model. They say the health-system-owned laboratory must move beyond its established role to show how it will help cut costs while improving care and outcomes.



Dr. Cote

"Volume, increasingly, is no longer king," Dr. Cote said pointedly during a talk at this year's Executive War College. "We've all run our health care delivery systems based on the proposition that increasing volumes of any type—an increasing number of patients, or an increasing number of laboratory tests—are a good thing because we get reimbursed on a per-unit basis. This is shifting, and the shift that's taking place in the marketplace is one we need to be able to respond to."

"We need to develop new strategies in these new payment models that will deliver financial sustainability," Dr. Cote added. "We either need to change our strategy in the hope of becoming a winner, or we can remain the same and see the world changing around us—and that will be a losing proposition."

An essential part of success in the pay-for-value world is to re-examine how pathology services can contribute to the health system's larger mission of providing better results rather than simply more care, Dr. Cote said.

"When we think about values in pathology, what we've traditionally thought about are the things like costs, turnaround time, our expertise, access," he said. "The emerging values—and the values that will determine how we interact with these at-risk arrangements, with coordinated care, with accountable care organizations—have to do with things that are not necessarily only in the pathology realm, though certainly almost all of them can be deeply impacted by pathology services."

"We're talking about improved care coordination across the continuum of health care, an emphasis on prevention, and we also have outcome-driven and evidence-based measures for practice," Dr. Cote added. "We are being asked to engage patients and families in their own health care. And we have issues with regard to population

health management, where we can play a particular role.” The lab also has a place in managing overall health care costs, he said. “These things are not specific to pathology, but they are issues where pathology can play a major role and add value to health care delivery.”

But before what Dr. Cote and his colleagues regard as more transformative work came more conventional strides toward efficiency. When Dr. Cote arrived at UM, it had more than 20 separate labs providing services to its patients.

“We have consolidated that, and we’ve decreased our costs, producing savings to the lab and to the entire health system,” Dr. Cote said.

“What we had was an uncoordinated lab system that had generated very high costs,” he tells CAP TODAY. “The first thing we set out to do was to coordinate lab delivery, put it under a single umbrella, and reorganize the way in which we delivered lab services.” The savings amounted to millions in the most recent fiscal year, Dr. Cote says.

For the system’s 57 affiliated clinics, virtually all of the laboratory work was going to outside vendors.

“We’ve insourced, and now have payer contracts for approximately 90 percent of our outpatient population,” Dr. Cote said.

Another big undertaking, UM pathology leaders say, has been to radically shift how tests are ordered. Prioritizing areas of testing with high costs and high variability, UM set its sights on hematopathology ordering. A major factor in excessive test ordering was that requisition forms routinely listed test after test after test. “A requisition form for hematopoietic malignancies, for example, listed nearly 50 tests for physicians to pick and choose.” This led to problems, Dr. Cote said.

Hematology/oncology fellows or the pathology residents were simply checking off boxes. “And this was a common occurrence. You can imagine, for the most part, that there was substantial overutilization. These less experienced fellows and residents didn’t want to miss a test.”

The ordering process “made it easy for clinicians to overutilize the system,” adds Merce Jorda, MD, PhD, vice chair and chief of anatomic pathology. “They were requesting tests that really were not useful, bringing waste to the system as well as a lot of costs, and that didn’t necessarily have value for patients.”

The lab’s leaders took a collaborative approach to tackling the problem, says Joseph Zeitouni, MD, director of pathology informatics at UM and assistant professor of pathology at the medical school.

The story began two years ago when the university acquired new oncologist practices and the number of bone marrow biopsies performed in the cancer center increased dramatically. “The oncology fellows and residents were circling everything applicable to acute myeloid leukemia or myeloma,” Dr. Zeitouni says. “The patient would have an initial biopsy in August, and then for every follow-up biopsy they ordered the same screening panel of tests they had already ordered in the baseline diagnostic biopsy, rather than choosing only those mutations that had been previously identified.”

Operating an integrated hematopathology shop where all subspecialty testing labs use the same laboratory information system, the lab leaders could identify the waste and take the information to clinicians.

“The extra testing volume had stressed our laboratory capacity so much that we were sending off extra specimens to reference labs,” Dr. Zeitouni says. “When we showed them the data about the impact of their overutilization, they were very eager to do whatever it took and changed their behavior and workflow to get better turnaround time and service.”

Working with hematology-oncology, UM’s pathology leaders developed more than two dozen algorithm-based protocols for hematopathology ordering that are based on clinical presentation rather than a dizzying list of tests.

“This is a real partnership with clinicians,” Dr. Cote said at the War College. “We don’t order single tests. We order based on clinical scenarios.” The changes have led to a 25 percent cut in expensive cytogenetic test orders, he

said.

"We've also seen improvement in turnaround times, and we've standardized reporting, and we have much greater physician satisfaction," Dr. Cote said. "We've standardized our way of working up patients, and we are managing them based on that workup."

The plan is to expand the approach to other areas of testing. UM is at work on a comprehensive project targeting use of esoteric and molecular testing, Dr. Cote tells CAP TODAY.

"This is really designed to enhance evidence-based patient care, but it is already showing an impact on controlling utilization by ensuring the tests are being ordered in an algorithm- and protocol-driven fashion," he says.

As important as lab efficiency and managing test use are, by now they are considered well within the traditional realm of pathology services. But several other UM initiatives begin to display a more expansive approach to the laboratory's role in cutting costs while improving care and patient safety.

First is the lab's role in giving patients direct online access to their test results, which UM pathology leaders view as a move that can enhance patient satisfaction and safety. A Department of Health and Human Services regulation finalized Feb. 6 says that starting in October labs will have to hand over completed test reports to patients within 30 days upon request.

"That's just part of the increasing trend we see toward involving patients in their own care," Dr. Zeitouni says. "We do have, on our own campus, and we know of similar occurrences at other institutions, a few unfortunate examples where pathologists did everything they could have done—where they signed out a case with a diagnosis of cancer on a patient, informed clinicians of an unexpected diagnosis of cancer, but for whatever reason, the follow-up just never happened."

With the patient portal, available at MyUHealthChart.com, patients can see their results for themselves. So far, more than half of ambulatory care patients have used the system to view their results. The portal is promoted through signage throughout the health system. Signing up for access is integrated in patient registration and the check-out processes. Each test result is accompanied by a link to patient-friendly information from the National Institutes of Health's MedlinePlus service.

"Although this is a fairly new system, it's already been shown to be successful," Dr. Cote said of the UM portal. "It's a great patient satisfier, and it's a superb risk-mitigation strategy. Because these results are getting out there, you can document that patients and doctors are looking at them. And it's a great physician satisfier as well."

Another change on this front will be less visible to patients but may have a greater patient safety impact. Starting later this summer, if an anatomic pathology result meets certain criteria—a new or unexpected cancer diagnosis, for example—the result will be flagged in UM's electronic health record system as significant, says Josh Yelen, vice chair for administration in the Department of Pathology.



Yelen

"We will send a message to the provider's inbox in the EMR, create a special queue for patient scheduling service to contact the patient to set up a follow-up appointment, and drop the results in a special folder where follow-up can be automatically documented and centrally tracked by health system quality management," Yelen says. "This

is to improve patient safety. It makes sure patients get the results and protects the clinicians.”

Yet, even when patients and physicians do see the test results, greater intervention may be needed to turn around a patient’s trajectory. That’s the basis for another ambitious project at UM that seeks to use laboratory data to help improve chronic disease care. Pathology already tracks how well UM ambulatory clinics are doing in meeting population health goals. One of these metrics is the proportion of a clinic’s type 2 diabetics whose glycated hemoglobin is below the seven percent target. Such measurements are used as part of Medicare’s Physician Quality Reporting System and the National Committee for Quality Assurance’s patient-centered medical home certification standards.

“These are quality assessment tools that will be critical for pricing and credible for quality assurance,” Dr. Cote said. “It answers the question, ‘What’s your quality?’ But we not only give a general assessment. We’re now moving to provide specific alerts on outliers for appropriate intervention, identifying those patients who need better or more specialist management.”

The first target for intervention are patients whose A1c levels are well beyond goal and have stayed that way for an extended period, says Philip Chen, MD, PhD, UM’s chief of clinical pathology and vice chair of the Department of Pathology.

“With diabetes patient management, at some point they get so complicated that they need to be handed to endocrinology specialists,” he says. “This is one approach where we said, as a laboratory: We have the data, we know what the patients look like because we’re following them. How do we use our data and informatics tools to identify these patients who have been out of control for so long with primary care physicians that it’s time to go to a specialist?”

The idea, Dr. Chen says, is to notify the outlier patient’s primary care physician about the out-of-control result, encourage a change in management, and make it easy for the doctor to set up a referral to a UM endocrinologist. Also, the plan is to automatically generate a note to patients urging them to make a physician appointment regarding their A1c results. There are still technical hurdles to be overcome to put the plan into place, but UM leaders say they hope to have it up and running soon.

“We did this in collaboration with the endocrinologists at the University of Miami,” Dr. Cote said, noting that an algorithm-based protocol was developed to identify the outlier patients based on their lab results and medical histories.

While some primary care doctors may not like pathology suggesting they send their patients with diabetes elsewhere, Dr. Cote tells CAP TODAY that this is simply another step UM pathology leaders are taking to help ensure better care.

“It’s just that closing of the loop,” he says. “Let’s not miss these patients and let them fall through the cracks. If we were practicing medicine in a perfect world, and we as individuals never missed anybody, and we always saw that bad lab result and acted on it, then we wouldn’t need this. But that’s not how it works. Often, the patient comes in, then the lab results come in, and you see them back in six months and that’s when the doctor sees the lab results. Using informatics tools can help us, the pathologist-clinician partnership, deliver best practices consistently all the time.”

Another big plan in the works would help spot patients whom Dr. Cote, in his War College talk, dubbed “time bombs” in terms of their potential for needing costly care. He said it is generally understood that 20 percent of patients account for 80 percent of health care costs, while five percent tally 50 percent of medical expenses. Of that five percent, two-thirds of patients go from being low-cost patients to high-cost patients year over year.

Dr. Chen explains the point further. “The year before, essentially most of these patients were spending no money on health care,” he says. “These people don’t see the doctor and are deteriorating without anyone knowing it. And

then, all of a sudden, they show up in the emergency department with an acute MI that costs \$65,000 to treat.”

But how can a health system such as UM identify these patients before that call to 911 is made? That is where a predictive modeling questionnaire that asks just a few questions about a patient’s age, sex, weight, and basic medical history comes into play.

“We have about 3 million patients in our EMR database,” Dr. Chen says. “With almost every clinical visit, whether you have a little cut on the finger or a little cough and go to the clinic, we collect this kind of data. . . . Using a scoring system, we can identify the people at high risk and, looking to the EMR to see if they have existing diagnoses of diabetes along with laboratory markers, we can really narrow down the list to those people who are at high risk but don’t know about it.”

The plan is to intervene by having UM’s care coordination group reach out to these patients to encourage them to see a physician to be evaluated for diabetes or heart diseases and to help avoid a complication down the road. While the initiative makes sense from a population-health-management perspective and aligns well with the idea of accountable care, UM officials note that it also makes short-term sense under the predominant fee-for-service pay model. These are patients who, after all, might have otherwise gone untreated at UM, or might seek emergency care elsewhere.

Indeed, as is the norm for the South Florida market, UM does not participate in any Medicare or Medicaid accountable care programs. The health system does take part in Medicare and Medicaid managed care programs. Though UM has been slow to enter the brave new world beyond fee-for-service, this has not stopped Dr. Cote and his colleagues from following the Boy Scout’s motto, “Be prepared.”

“The Department of Pathology must continue to assert ownership of the entire laboratory test process and actively participate in and lead campuswide initiatives aimed at improving the quality, timeliness, cost-effectiveness, and safety of laboratory testing and patient care,” Dr. Zeitouni says.

Dr. Cote believes the steps that UM’s pathologists are taking are worthwhile regardless of the payment picture.

Question	Score	Enter your score (enter 0, if you don't know)
1. How old are you?	< 40 years (0 point) 40–49 years (1 point) 50–59 years (2 points) 60 years or older (3 points)	
2. Are you a woman or man?	Woman (0 point) Man (1 point)	
3. Do your family members (parent or sibling) have diabetes?	No (0 point) Yes (1 point)	
4. Do you have high blood pressure or are you on medication for high blood pressure?	No (0 point) Yes (1 point)	
5. Are you overweight or obese? (see chart below to answer this question more accurately)	Not overweight or obese (0 point) Overweight (1 point) Obese (2 points) Extremely obese (3 points)	
6. Are you physically active?	No (0 point) Yes (-1 point)	
TOTAL SCORE (add points from questions 1–6)		
If your TOTAL SCORE is ≥ 4 , you are at high risk of having undiagnosed diabetes or pre-diabetes. If your TOTAL SCORE is ≥ 5 , you are at high risk of having undiagnosed diabetes. See your doctor for a blood test to look for diabetes if your score is high.		

This six-question instrument and other modeling tools, developed by Bang H, et al. (*Ann Intern Med.* 2009;151[11]:775-783), could help save lives and avert emergency department use. The University of Miami plans to use its EHR database of 3 million patients to identify those at greatest risk of undiagnosed, untreated problems that could prove costly.

"Decreasing costs, controlling utilization, performing evidence-based medicine—these all are good things to do, even in the absence of being in an at-risk reimbursement model," he says.

As scary as the move toward pay for value may be, it also presents an opportunity for pathology and laboratory medicine, Dr. Cote said.

"We know that fee-for-service is being challenged. We know those fee-for-service arrangements will go away, and when we do have fee-for-service we know those rates are only going to get lower. There is no upside in the fee-for-service rates," he told the War College crowd. "But we do have some advantages we can bring. We have some values we can add, and we can make the laboratory important. . . . We must not be a commodity, and we have to deliver values outside what we've traditionally perceived as the value proposition in pathology. We have to reassess what laboratory services are and how we provide them."

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