Primary Care Physicians and the Laboratory
Now and the Future

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Steven Kroft,1 past president of the American Society for Clinical Pathology, challenged the laboratory community at the beginning of 2014 to remember 10 things that we must do to face and thrive in the future. His premise: the landscape in health care is changing dramatically, and the laboratory is right in the middle and must adapt. His list included the following: (10) “Be smart about your human resources.” (9) “Get lean.” (8) “Take charge of test utilization.” (7) “Take up permanent residence in the patient-centered medical home.” (6) “Create true value.” (5) “Locate your inner informatician.” (4) “Get out of the lab.” (3) “Quality is not optional.” (2) “Never, EVER forget who our final customers are.” (1) “Don’t fight the future. Embrace it.” A common theme is that laboratorians (pathologists and nonpathologists) must add value to the health care team by providing high-quality and cost-effective results, optimizing utilization of the clinical laboratory, and being visible to be relevant. Serendipitously, Kroft’s advice directly relates to findings of a survey of primary care physicians (PCPs) published soon thereafter in the Journal of the American Board of Family Medicine.2

The survey was conducted by a group of individuals affiliated with the Centers for Disease Control and Prevention, named Clinical Laboratory Integration into Healthcare Collaborative, or CLIHC (http://www.cdc.gov/ophss/cseis/dlpss/eblm/#CLIHC). As the name implies, CLIHC projects aim at defining problems and devising solutions to improve the role of the clinical laboratory in patient care. For this survey of PCPs, Hickner et al2 sent a questionnaire to almost 32,000 physicians across the country. The goal was to identify PCPs’ challenges and their recommended solutions to diagnostic laboratory test utilization issues as they arise in daily practice. The survey was based on live discussions with PCPs in three focus groups in different cities. It had five domains: (1) uncertainty regarding ordering and interpreting tests, (2) tactics to overcome uncertainty, (3) factors that influence test ordering, (4) challenges to appropriately order and interpret tests, and (5) perceived solutions. The results described here come from the responses of almost 1,800 PCPs who returned the survey, about 50% family physicians and 50% general internal medicine physicians. The respondents’ mean age was 53 years, mean years in practice was 21 years, and mean number of patients seen per week was 81. Responding physicians ordered diagnostic laboratory tests for approximately 31% of patient encounters (approximately 25 times a week). They reported being uncertain about which test(s) to order for 14.7% of patients who needed diagnostic laboratory tests and uncertainty about interpreting the results for 8.3%. At first glance, these numbers may not be alarming to laboratorians. However, considering that there are more than 500 million PCP visits in the United States each year, they represent a very large problem: potentially 23 million patients may suffer the consequences of incorrectly ordered or interpreted laboratory tests.

Diagnostic errors have had significant attention since the Institute of Medicine publication To Err Is Human in November 1999.3 The report’s highlight was that at least 44,000 people die each year from preventable medical errors in hospitals in the United States. The main types of medical errors are in the areas of diagnosis, treatment, or prevention, while diagnostic ones include (1) error or delay in diagnosis, (2) failure to employ indicated tests, (3) use of outmoded tests or therapy, and (4) failure to act on results or monitoring of tests.4 Since the report’s release, there has been a great deal of effort to address the causes and consequences of medical errors,
in search of solutions. The Society to Improve Diagnosis in Medicine (SIDM; http://www.improvediagnosis.org/) is one example. The SIDM commitment—“to reduce misdiagnosis-related harm and ensuring that diagnosis is timely, accurate, reliable, efficient, and safe”—is evident in its encouragement of research, education promotion, and awareness building among patients, clinicians, researchers, educators, insurers, and health care professionals. As laboratorians, we should align ourselves with such multidisciplinary groups. Our participation will be mutually beneficial. We are also patients of the current system that desperately calls for improvement.

The survey of PCPs also showed that physicians are frustrated with aspects of the testing process, including confusing test names, slow turnaround times, difficulties accessing prior results, and variations in reference ranges and report formats among laboratories. For us laboratorians, the good news is that we can affect most of these issues. The bad news is that we usually ignore them. Another recent CLIHC publication explored test nomenclature and called for initiatives to simplify the process for the sake of ultimately better patient care. Unfortunately, most of us are unable or unwilling to even discuss the problems facing our PCP colleagues, since the necessary changes require multidisciplinary collaboration and demand significant time and effort.

Among the top factors described by the PCPs as reasons to challenge the choice of laboratory tests were cost, including that to the patient; mandates from insurance companies to use specific laboratories; and the lack of available cost comparison data from the various laboratories.

Perhaps most relevant to this audience is how PCPs deal with uncertainties when ordering laboratory tests. The most common resource used is e-references, which 57% use daily or at least once a week, followed by review of paper references at 27%, referral to a specialist at 22%, and guidelines and patient follow-up at 21%. Only 6% of the time do PCPs ask a laboratory professional, less often than they consult another PCP, at 14%! For those who have experience with contacting the laboratory, they reported the interaction to be helpful 53% of the time, compared with curbside consults, considered helpful 75% of the time. What could this difference represent? Are laboratorians not able to provide the type of advice physicians are looking for? Are we not aware of their needs? Can we not “speak their language”? What could we do to make the conversation more effective and foster ongoing communication next time the need arises?

PCPs also disclosed that when they are not sure how to interpret test results, they primarily review the patient’s history (70% daily or at least once a week), follow up with the patient (66%), read e-references (46%), order more tests (34%), refer to a specialist (29%), ask another PCP (23%), review practice guidelines and paper references (22% and 20%, respectively), repeat the same test (19%), seek a curbside consult (18%), and ask a laboratory professional (6%). These responses are very similar to the previous question regarding uncertainties about test ordering. Once again, the helpfulness of asking a laboratory professional was below most of the other options, at only 35%. In comparison, ordering more tests and repeating the same test were considered helpful 37% and 34% of the time, respectively. Once again, we should ask ourselves, “Why is it that our interactions with clinicians are not considered as useful as when they consult with other peers?” In fact, PCPs told us that their interactions with the laboratory were most useful when they dealt with technical issues or location of missing results—not clinically relevant issues such as interpretation of test results!

While there are many reasons each individual physician and his or her laboratory professionals so rarely interact, this survey should be seen as a wakeup call. Independent of our individual circumstances, Kroft’s list highlights activities we must be doing or soon starting to do, to expand our role in the diagnostic process. The methods we use will certainly vary widely depending on our laboratory specialty, our practice setting, our personality, and myriad other reasons. The need for informatics assistance is unquestionable and essential. However, such a tool does not replace the personal side of the issue. Making ourselves approachable and easily reachable by our clinical colleagues should be our ultimate goal to help our “final customers.”

Pathologists heard a similar call to be consultants almost 20 years ago. In 1996, Laposata wrote about what we should be doing as clinical pathologists. He proposed that laboratory medicine professionals pursue three broad purposes: provision of laboratory data, control of laboratory utilization, and quality assurance. In addition, he stressed that we have the responsibility to provide effective consultation to directly affect patient care while fulfilling our basic roles. As a pathology resident at the time (M.B.M.), I was inspired by the message that our most important role is to continuously communicate with our clinical colleagues. I have been fortunate to practice that at the University of Alabama at Birmingham for the past 16 years. I know for certain that most of my relevance as a member of the medical staff stems from my direct relationships and collaborations with physicians from other departments.

We all share the sadness that comes from realizing from so many sources, including the survey highlighted here, that we have to do more to improve the effective use of the laboratory for accurate and timely diagnosis. Our goal is to make the pathology community aware of what our clinical colleagues feel about the laboratory in the 21st century. We would like to propose that we align ourselves with other groups such as the SIDM. In addition to educational resources, the SIDM annual meeting is a forum for the discussion of
problems as well as solutions by international experts in diagnostic errors. Another suggestion is to become acquainted with the “Choosing Wisely” campaign launched in 2012 by the American Board of Internal Medicine Foundation (http://www.choosingwisely.org/). More than 60 medical societies have participated so far, critically reviewing practices that are no longer justified and may even cause patient harm. Among invasive procedures, interventions, and imaging studies chosen as the top five things to be questioned by patients and physicians in various specialties, there are several laboratory tests. Not surprisingly, the list of tests includes several currently lacking proven clinical relevance but still often ordered in daily practice, such as the bleeding time. Finally, in addition to being concerned with overutilization of certain tests, we must also evaluate the possibility of underutilization. In fact, the latter has been recognized as a significant problem in a recent publication by Zhi and colleagues, who urged us to study the problem and understand it better. By discussing within our institutions what our colleagues’ own peers have identified as wasteful use of the clinical laboratory, we have a higher chance to succeed in our efforts to influence test utilization. Furthermore, we demonstrate our interest in learning what is happening in their “world.” This small step may be the beginning of fruitful collaborations for years to come. Only then will we (laboratorians) be and stay relevant and recognized as essential to an improved health care model.

References