As healthcare becomes more complex, how will the role of the lab professional evolve over the next 5 – 10 years?

WS: Over the next decade, the role of the laboratory professional will change in several ways.

1 First, automation systems and imaging systems will significantly transform their practice. Laboratory professionals will need to adapt to better and faster instrumentation in order to continue to provide the highest level of patient care.

2 Second, remaining competitive in the changing healthcare landscape will require evidence-based and outcomes-based practice. Laboratory professionals will need to be able to demonstrate the impact of laboratory tests on overall patient health through activities such as involvement in clinical data registries.

3 Finally, laboratory professionals will need to take a leading role in guiding test utilization. Many clinicians lack critical knowledge of the appropriate selection and interpretation of laboratory results, in particular genomics-based assays. Laboratory professionals will need to collaborate with clinicians and advise them regarding appropriate test selection and interpretation.

How about laboratory IT trends?

1 Recent IT advances provide a variety of opportunities to transform laboratory practice and the future of patient care. Through the integration of pathology informatics and the electronic medical record, big data can be utilized to better inform diagnostic decisions. By collecting and aggregating data, patterns and trends can be identified that will guide personalized therapeutic interventions.

2 The aggregation of data can also be leveraged to advance laboratory operations. By analyzing information from laboratory databases, opportunities to improve efficiency and effectiveness can be identified. In 2016, ASCP established the National Pathology Quality Registry (NPQR), a national quality and benchmarking program that will officially launch in fall 2017. This registry is focused on helping laboratories harness their lab data to measure and improve quality and performance to improve patient outcomes.

3 A third area of growth is digital pathology. The recent approval of one digital pathology platform for primary diagnosis by the FDA provides opportunities for clinical pathology services to improve workflow and diagnostic accuracy. With digital pathology, sophisticated quantitative algorithms can be leveraged to stage and grade cancer. Cases can be more easily shared for expert review, and clinicians in resource-limited areas can gain access to quality diagnostics.

What are the top three challenges that clinical laboratory professionals face today? How can these challenges be overcome?

WS: Diagnostic tests are critical as up to 60 to 70% of critical clinical decisions are influenced by the pathologists and laboratory professionals that ASCP represents. As a result, the medical lab is of significant importance to the operation of any healthcare system. Each lab faces a complex set of circumstances under which they operate. These circumstances create challenges such as addressing higher testing volumes, resolving staffing needs, improving time-intensive processes and constantly upgrading equipment.

But in my mind, the number one challenge that every lab faces is how to best provide clinicians with access to diagnostics information and insights that can help them make the best clinical decisions around the appropriate treatment for a patient. To do this, labs need to be fully staffed with certified and experienced personnel. Labs must not only find certified employees but also support their ongoing professional education and networking. And, these personnel must be up to date on emerging technologies, practices and techniques. Laboratory professionals can stay on the forefront of the profession by attending meetings, participating in live and online education and learning about the latest advances through peer-reviewed journals. Finally, lab personnel need to have access to quality data and best practices to ensure that they operate at peak performance.

For ASCP this means participating in our National Pathology Quality Registry (NPQR) - the first of its kind in pathology and laboratory medicine. NPQR will drive improved quality and performance by capturing data that measures adherence to clinical practice guidelines recommendations, quality and performance standards and appropriate use criteria (AUC) for laboratories. Resolution of the challenges facing today’s clinical laboratories takes time and resources, but laboratory directors, staff and personnel work to address them every day.
ASCP is returning to the Middle East for the 4th year. Why should Middle Eastern lab professionals attend this event?

WS: Pathology Update 2017 will bring together a remarkable group of pathologists and laboratory professionals from all parts of the Middle East and beyond to share their scientific accomplishments, experience and best practices in laboratory medicine. The conference will focus on the intersection of technology and diagnosis, where pathologists and lab professionals will partner to help create the future of personalized medicine. The conference will address many subjects not covered in previous laboratory medical conferences as well as topics proven to contribute to overall laboratory quality. Key topics for the conference include the following:

1. Advanced diagnostics (deep learning, genome sequencing, innovations in point-of-care testing).
2. Molecular (metabolic genetics, DNA technologies).
3. Microbiology (antimicrobial stewardship, Hepatitis C diagnosis and treatment).
4. Transfusion medicine/blood banking (informatics in transfusion medicine, hemovigilance).
5. Chemistry (investigations of autoimmune disorders, toxicology, tumor markers, liquid biopsy).
6. Hematology (coagulation, hemoglobinopathies, body fluid analysis).
7. Leadership & lab management (integration of clinical labs, laboratory informatics, Westgard sigma verification program, ASCP pre-certification programs).

Because ASCP is the only organization that represents all of the professionals working in the lab, this conference presents a unique opportunity to learn about integrated and comprehensive approaches to today’s most pressing diagnostic challenges.

Analyzing the conference program, diagnostic tests are critical as up to 60% to 70% of critical clinical decisions are influenced by the pathologists and laboratory professionals that ASCP represents.

About Dr. William Schreiber

Dr. Schreiber is the Clinical Director of Chemistry, BC and a Professor in the Department of Pathology & Lab Medicine, UBC, LifeLab. Dr. Schreiber received his doctor of medicine degree from Baylor College of Medicine in Houston. This was followed by a residency and research fellowship at the University of Washington, Seattle. Since joining the faculty at UBC, he has committed a large part of his career to the education of medical students, residents and colleagues. He directed the medical biochemistry residency program for 10 years and served as associate dean for undergraduate education at UBC from 1999-2002. He has received a number of teaching awards from students and peers, as well as recognition from professional organizations for contributions to continuing medical education. In September, 2017, Dr. Schreiber completed his term as president of the American Society for Clinical Pathology (ASCP), the largest laboratory medicine organization in the world. Dr. William Schreiber is speaking at the ASCP Pathology Update 2017.

14 – 15 NOVEMBER 2017
Mohammed Bin Rashid University of Medicine and Health Sciences, Dubai

16 – 17 NOVEMBER 2017
Cleveland Clinic Abu Dhabi, Abu Dhabi

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