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Guest: Dr. Stacy Melanson from Brigham and Women's Hospital, Mass General Brigham Enterprise Laboratory Services, and Harvard Medical School.

Randye Kaye: Hello, and welcome to this edition of *JALM Talk* from *The Journal of Applied Laboratory Medicine*, a publication of the Association for Diagnostics & Laboratory Medicine. I'm your host, Randye Kaye.

While clinical laboratories offer essential diagnostic testing, the importance of their role may often go underappreciated by other healthcare professionals, patients, and the general public. Prior to the COVID-19 pandemic, clinical laboratories, like other areas of healthcare, were experiencing staffing shortages and high rates of burnout. Then the pandemic brought new demands for the clinical laboratory, including the need to provide rapid, reliable, and high throughput diagnostic testing for COVID-19. Many laboratories faced shortages of testing personnel, reagents, and supplies, all while experiencing surges in hospitalized patients and increased expectations for rapid test turnaround times.

The November 2023 issue of *JALM* features a Special Report describing a series of eight surveys conducted by AACC, now the Association for Diagnostics & Laboratory Medicine, over a 32-month period that asked U.S. and international clinical laboratory leaders questions about COVID-19 testing, supplies, staffing, and lessons learned. The survey results have enabled ADLM to demonstrate the impacts of the pandemic on the clinical laboratory community.

Today, we're joined by the article's corresponding author, Dr. Stacy Melanson. Dr. Melanson is the Vice Chair of the Clinical Laboratories at Brigham and Women's Hospital, Associate Clinical Director of Mass General Brigham Enterprise Laboratory Services, and Associate Professor of Pathology at Harvard Medical School. She has particular interests in optimizing toxicology testing services and improving laboratory operations.

Welcome, Dr. Melanson. First, can you give us a brief overview of these surveys? What were the goals and who was the target audience?

Stacy Melanson: Absolutely. We had several goals. One of the goals was to assess the impact of the pandemic on both U.S. and international clinical laboratories. In particular, we wanted to know who was doing COVID testing, what method, the turnaround time. We also wanted to assess any difficulties in getting supplies, in maintaining staffing, as well as importantly, the lessons learned from the pandemic so we could move forward and demonstrate that.

Throughout the survey, we actually increased the number of questions. We started with 15 questions, and that increased to 31 by the last, the 8th survey. And that was just to address additional challenges and concerns that came up during the pandemic. Another important goal for these surveys was to use it to increase the visibility of the laboratory, not only to our clinicians, but to the government, to the public, so that we could demonstrate in a data-driven way the impact globally that the pandemic was having on the clinical laboratories.

The survey, part of your second question, was actually geared towards laboratory directors. We did this because we felt that they would have the knowledge, or at least the resources to obtain the knowledge, to answer the questions and specifically address any lessons learned during the pandemic.

Randye Kaye: All right, thank you. As you shared, you are a laboratory director yourself, and the article discusses the lessons learned from COVID. Can you share a little bit more about what you personally learned from the pandemic? Was it similar to the responses that you saw in the survey, and had these lessons led you to modify your approach to lab leadership?

Stacy Melanson: Sure. I did learn many lessons and actually a lot of them were similar to what my colleagues responded to in the survey. I'll just touch upon a few of them, but I did actually publish two recent articles if the readers are interested in learning more. One was "How SARS-CoV-2 Transformed the Clinical Laboratory: Challenges and Lessons Learned" and that's in *The Journal of Applied Laboratory Medicine*.

We also recently published a paper entitled "Pandemic Response in the Clinical Laboratory: The Utility of Interactive Dashboards" and that's in the *Journal of Pathology Informatics*. But I could say one important lesson that I learned was the importance and the benefits of rapid decision making that we had to do during the pandemic. And I think we should apply that on a day-to-day basis and really help move things forward. I think it can have many benefits if we empower our employees and our staff to make decisions more quickly and to implement change more quickly.

It will benefit our workflows, it will benefit patient care. Second lesson that I learned was the power of data analytics and utilizing data to advocate for the clinical laboratory, at not only a local level at your institution, but nationally and internationally. And then lastly, I'll just mention I learned the importance of redundancy. We can't just depend on one person or one supply to get things done because if we lose that one person or one supply, we don't have any other avenues to maintain laboratory operations.

And part of your second question, I would say yes, my leadership style has changed. Just a few things that I can comment on are: now I really make a concerted effort to interact with the staff, the frontline staff, so we have luncheons with the employees, especially the new employees, to meet them and hear how things are going. I also go out and interact with the frontline staff as they're testing and get their thoughts on what's going well and what could improve. And I'm hoping that as a leader that I am showing how valued that they are and that improves their staff well-being as well.

I am also working to improve my change management skills. Healthcare landscape is changing rapidly and we need to adapt to that. And that involves change and that can be hard for a lot of people. As a leader, it's important that you know how to manage that with different personalities and challenges.

Randye Kaye: Absolutely. Out of the crisis came a great deal of change. The pandemic certainly put a spotlight on the clinical laboratory and they responded accordingly by quick validation of the COVID testing and actually handling large testing volumes for sure, and providing, as you said, that rapid turnaround. Do you have any suggestions on how the laboratory community can continue to promote its value, particularly to providers and to patients?

Stacy Melanson: Yeah, as you said, I think it's critically important that we continue to promote the value of the laboratory, and that should be a very high priority given the challenging healthcare environment. One thing I think we could do is that laboratory professionals could work closely with providers to study the impact of new laboratory tests, of change that we make and how that impacts patient care. I think a lot of times the laboratory will typically base it on literature or the provider's recommendation as we make changes or implement new tests. But we often don't take the next step to say, once we've implemented that new test or implemented a change, has it positively impacted patient care? Have we reduced invasive biopsies? Have we reduced radiologic studies? And if we can demonstrate that, we need to show the community that the laboratory has value. And this is how we directly impacted and improved patient care

by implementing change. And we could also utilize that data to say the laboratory needs additional resources if we want to continue this or implement this new test or make a change.

For patients, I think social media can be a very powerful tool to educate patients, and maybe that's for the younger among us to advocate and promote the laboratory on social media. I think stories of how the laboratory impacted patient care can be particularly compelling. How the laboratory made the diagnosis of what infection was going on, how the laboratory helped detect cancer earlier. And if we can get those stories out there, hopefully that can promote the value of the lab to the patients. And we should also, as a laboratory community, increase our patient-facing activities. Maybe we should start booths where we do lab testing and we're available to help interpret the test for the patients and educate the patients in a patient-facing way.

Randye Kaye: Those are actually very exciting ideas, and people do respond to stories very, very well. The survey respondents were asked about how they perceived AACC, now the Association for Diagnostics & Laboratory Medicine, the advocacy efforts for clinical laboratories during the pandemic, and the article indicates respondents generally found this advocacy effective. Do you think the advocacy has continued? How has ADLM engaged their membership to promote advocacy?

Stacy Melanson: To your first question, I think ADLM continues to strongly advocate for the laboratory. There is an active advocacy and outreach committee that focuses both on national and international priorities, and those include things as test reimbursement, shortage of healthcare workers, regulatory changes, and test utilization.

Importantly, I think ADLM members have a seat at the table in Washington, DC to make changes. You can check out the ADLM website, which has policy updates, position statements, and stories from laboratory professionals. And I think ADLM should continue to work in advocacy and outreach and particularly engage new members.

Many members may not know what advocacy is and the benefits of it, and I think maybe some sessions or discussions to promote the value of advocacy would be helpful. The other thing, the name change from AACC to ADLM is another indication that the organization intends to advocate for the laboratory community as a whole and not specifically focus on issues specific to clinical chemistry.

Randye Kaye: Thank you. My last question has to do with the fact that one of the things the pandemic brought to light, and it's still true, is the lack of adequate laboratory staffing. My final question,

maybe it's going to be the hardest one. How can we recruit and retain talented people into laboratory medicine?

Stacy Melanson: That's definitely a very challenging question. And one of the things that makes it even more challenging now is the appeal of jobs where staff and employees can work remotely. We can't do that in the laboratory. We need to be on site. I think we need to work as a team. We need to act on any and all ideas that could help us recruit and retain employees.

As discussed earlier, I think if we can promote the value of laboratory medicine to the public better, that should increase awareness of the importance of the laboratory profession, what the laboratory profession is. We could engage marketing experts here, and maybe we're not marketing ourselves as good as we should. We need to advertise our value. We could partner with colleges and offer students to come and tour the laboratory or work in the laboratory for the summer.

One of the things that we've done at our institution is we recently started a medical laboratory science training program on site, and that we're hoping, and initially it has shown the benefits to recruit and retain staff. On the recruitment side, we can recruit the staff that we're training in the MLS program to our institution, and we can also retain by providing our current staff with opportunities for career growth.

Randye Kaye: Thank you so much for joining us today, Dr. Melanson.

Stacy Melanson: You're welcome. It was a pleasure.

Randye Kaye: That was Dr. Stacy Melanson from Brigham and Women's Hospital describing the *JALM* article "Robust Response of the Clinical Laboratory to the COVID-19 Pandemic despite Significant Challenges." Thanks for tuning into this episode of *JALM* Talk. See you next time. And don't forget to submit something for us to talk about.