

AN EXECUTIVE DISCUSSION

Recognizing Healthcare Transformation and Laboratory Excellence

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Intelligent Liver
Function Testing (iLFT):
A Cost-Effective Way to
Increase Early Diagnosis
of Liver Disease



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Improved Diagnostic Pathway
and Treatment for Hospitalized
Patients with Acute Kidney Injury
Disease



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Improving the Safety
of Mothers and Babies
Using Angiogenic
Biomarkers for
Pre-Eclampsia



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Improving the
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MODERATOR

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Laboratory data is foundational to most clinical decisions. Furthermore, laboratory medicine can have a dramatic ripple effect in transforming overall care when leveraged as an asset in strategic planning. Abbott has been instrumental in elevating this opportunity, partnering with key healthcare organizations and leading the UNIVANTS of Healthcare Excellence Award program which recognizes integrated care teams who have leveraged laboratory diagnostics to drive care transformation.

Fawn Lopez, publisher of Modern Healthcare, sat down with members from three of the winning care teams this year as well as two international leaders from world-renowned organizations in laboratory medicine to explore their best practices in leading collaboration across disciplines, including the core laboratory, to reshape care pathways and ultimately achieve measurably better outcomes.



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FAWN LOPEZ: Historically, laboratory medicine has been underutilized and underrecognized as a strategic asset in driving innovation and improving health outcomes. Yet, it has played a key role in these winning care projects. What advice do you have for other healthcare leaders who are hoping to elevate laboratory medicine and technology to transform processes and improve care?

MANU VATISH: It's crucial to have a very strong relationship between the various disciplines and departments you're working with. Communication is crucial. Ultimately, that positive experience led to new relationships and spin-off projects on other key issues.

TIM JAMES: In 2001, when I was interviewed for my role as laboratory manager, I was asked, "What gets you out of bed in the morning?" My response to this was that biochemistry is involved in virtually every clinical area of the hospital. There are very few areas where we don't have some sort of interaction so consequently that gives ample opportunity to engage with care improvements. Where possible, I find the best interactions to elevate laboratory medicine's profile occur face-to-face. When I sit down with Manu or other individuals we talk about lots of different things that I'm doing or what my colleagues are engaged with in other clinical areas. That helps us to consider a range of tools we have and think about how these could be applied in different ways in different clinical areas.

It's not just clinicians, it extends to colleagues in finance, procurement, HR and other departments. If somebody's a floor above you, don't send them an email, go and speak to them. I find there are significant communication benefits if you are able to look somebody in the eye when sharing ideas or developments related to improving processes or introducing technologies.

MAURIZIO FERRARI: I'm very happy that we are here at this roundtable which represents what might be the best example of collaboration. But having been in this field for a long time, I can tell you this is most likely not a common occurrence for

laboratorians. In the last 20 years, health system consolidation has increased the number of tests that a single lab must do, while at the same time a decrease in reimbursement has led to a reduction in the resources we have to perform these tests.

Our lab is doing, maybe, 10 million tests today with the same amount of people that 20 years ago only had to do five or six million tests. Automation has helped with this, but the clinical relationship is very different. It's absolutely important to merge the work of laboratorians and clinicians, but for many, there isn't significant time to discuss potential collaborations. The future is that the laboratory should start again to convince administrators that this is mandatory. The winning care projects make it very clear that we must leverage laboratory medicine to improve the care system to save costs and ameliorate the outcome for the patients.

MICHAEL HAASE: I'm not a laboratorian, but if I was in such an erosive or a defense position where I'm only reduced to the number of tests I would deliver per day, I would work to emphasize to junior doctors, administrators and government how important laboratory medicine is for the whole hospital. So much of the data generated in the hospital is from the clinical laboratory, and so many clinical decisions are made with laboratory insights as the basis. So, the touchpoint of the lab clinician is significant, and his or her role in interpreting these test results is invaluable for clinicians, their patients and the care continuum.

It'd be interesting to see the impact if lab doctors visit with clinicians more regularly, maybe weekly to each ward. Maybe the lab holds a "lab day" in which they invite clinicians to visit and have a look at capabilities. This could be time-consuming, but the impact could be massive in opening a line of communication for better care collaboration. Nephrology is a very lab-dependent discipline, so as a junior doctor, I was in the lab and asking the lab doctors about the meaning of the test results every second day. Every time I left the lab, I understood something more. There is an unbelievable amount of knowledge in the lab, and I think more clinicians could benefit from their insights and experience.



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—MAURIZIO FERRARI

TIPS FOR SUCCESS



Get out of your department and talk to counterparts.

Participants agreed that leaders who are seeking to transform care must collaborate beyond their team and outside of their discipline to form meaningful, personal bonds with other colleagues. It's crucial that innovators gain the trust of counterparts so that they can articulate a shared vision of success.

FL: How can laboratory professionals and clinicians working on care transformation projects most effectively obtain buy-in from clinicians and administrators?

ELLIE DOW: You have to communicate the value that's relevant to the specific audience. Our project created a more efficient, algorithm-based Liver Function Test that eliminates the need for patients to receive follow-up testing and gives clinicians more detailed diagnostic information more quickly. Clinicians have a maximum of 10 minutes per patient — sometimes less than that — so when we pitched this test to them, I'd say, "Look, I can give you something that means you'll have to think less, and you won't have to see the same patient multiple times to follow up." We emphasized that this process would save in eliminating unnecessary appointments — we can do it in one visit. They were able to quickly appreciate the value as something they wanted to do.

IAN YOUNG: One of the things that strikes me while listening to all our winners talking today is how persuasive they are, and how well they communicate. It seems to me that often we don't place enough emphasis on what I would think of as the human factors that are involved in decision-making within healthcare

systems. How can individuals based in the laboratory get the information and clinical collaboration they need to transform care? Some of that comes down to personality, but some of it comes down to understanding the human factors that are involved in decision-making within the system in which you operate. It seems to me that when we do clinical education, we should not just focus on the science of what we do in laboratories, but also to try to help people improve their understanding of human factors and their ability to successfully demonstrate the value of what they do in the system and achieve the outcomes that they want.

FL: How can clinicians and laboratory professionals effectively turn research into practical clinical change?

IY: For all of these care projects, the starting point was a clearly identified problem and a shared vision for a meaningful clinical outcome. Regardless of what it was, there was a clear, desired outcome at the start, and one that was shared by the laboratory team and the clinicians they were working with. To me, that's an absolutely critical part of successful clinician-lab collaborations that we don't often talk about so much. Once a research project is complete, things often stop, and people don't move on to implementation in clinical practice. What struck me about these three projects is how effectively the implementation has been done.

ED: We were in a fortunate position because our study was originally funded by the Chief Scientist Office, the research arm of the Scottish government. We were duty-bound to report

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—MICHAEL HAASE



positive outcomes that can be implemented as much as possible across Scotland. But replicating it in other organizations is not as straightforward as you'd think. A lot of our work depends on the algorithms being programmed into a laboratory information system, but we don't all have the same systems. They don't all work in the same way, and laboratories are not all set up in the same way. So, we're working closely with other organizations that are looking to replicate our work in Scotland, throughout the U.K. and even abroad.

FL: What strategies can you share that have helped you build trust with major stakeholders?

MH: Transparency and communication are key to building trust. To communicate effectively, you need to know your hospital's data and put yourself into the perspective of each and every person you are asking to invest in your project, to be able to answer questions effectively. When we were trying to convince the hospital to pay for the algorithm, we showed them that improved diagnosis of Acute Kidney Injury would lead to an increase in coding of the disease, which generated 20 times as much money as the algorithm programming would have cost to implement. But we didn't stop with that. We knew that, while that would generate more revenue for the hospital, it would result in increased health costs for health insurers as there would be additional appointments. But we noted that if patients are also cared for in outpatient kidney care centers, we can reduce the long-term complications of kidney disease and reduce risk of cardiac issues, stroke and overall hospitalization. The circle closes if you are thinking long enough about it and provide the data for everyone's perspective.

TJ: I visit a lot of laboratories as an accreditation assessor, and one of the things we consider is the level of engagement with service users — mainly clinicians. Some labs do that very well, but others I visit have what I'd say are quite negative, patronizing views of their users, with the sentiment of "they don't know how to use our laboratory service and we're going to tell them how to do it". It's an assertion that has developed over time and whilst it's quite true we have, or should have, the expertise to guide clinical colleagues, we must be open to challenging dogma. In some cases, the evidence base behind status quo practice isn't very strong — especially when these practices haven't been reviewed or updated in decades. Laboratorians need to be willing to re-examine evidence to see whether there's anything new in the literature, or data we can examine ourselves, that will help us make decisions based on real, up-to-date information.

ED: Absolutely. It's about engaging with the users, but it's also about having a can-do attitude. When somebody presents you with a problem, the right response is, "yes, that's very interesting. I'm going to see if I can make that work." There may be barriers we have to get around, but it's important to have a can-do attitude to get the best result at the end. That kind of willingness to engage and listen enables the lab — which is often a very complex system — to work in a way that benefits both users and laboratorians.



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— IAN YOUNG

MV: When we were implementing our project throughout the Thames Valley, the most difficult part was persuading other clinicians to not have to repeat our study in their facility. We go through the conversation of, "we've done a trial that worked, we've implemented this test and it works in practice, and it's much better than the current practice," yet we still have clinicians who are reluctant to do something different. The conversations between laboratorians were often much more straightforward than the conversation between clinicians, who sometimes believe they have a different patient population. But populations in the U.K. aren't that different when it comes to this test — they're largely the same. So, convincing teams required finding individual clinicians with a can-do attitude.

TIPS FOR SUCCESS



Know your value and know your audience.

When seeking buy-in for a major initiative, leaders must be prepared to effectively communicate their projects to stakeholders who may have varying — and sometimes contradicting — priorities. For example, many winning care projects offered increased provider revenue from additional diagnoses, but that could also lead to increased costs for payors. UNIVANTS winners became adept at articulating the long-term value that their projects offered to each stakeholder.

FL: While processes vary throughout the world, we know that it is often difficult for clinicians to gain access to diagnostic or historical data to make informed decisions. What challenges have you faced in this area, and what can the industry do to encourage better sharing of data?

IY: The desired position by most of us is that there should be a single universal health and social care record for each individual, which contains all of their data and information across the course of their life. The idea is that this would be available in electronic format to guide clinical decisions, and potentially for use by researchers. The U.K. is committed to achieving that goal. Increasingly with the U.K., the argument is that as part of what we would describe as the social contract, the individual receives free medical care, but their data is available to the system to improve the delivery of that care, and available in an anonymized form to researchers to generate new knowledge. But what works well in the U.K. would not work well in other healthcare systems where individuals can choose to go to a variety of different healthcare providers where systems are not joined up, like the U.S.

MF: Some countries have done a good job in collecting this type of data, but in many countries, we have unconnected collections of laboratory and clinical data. In the future, to solve complex disorders, we will need to improve access across the continuum while also enabling access to researchers and other colleagues. Networks enabled by artificial intelligence will help us put together all of this data. This is probably the biggest effort we're undergoing to better understand pathology and how we can better link clinical information with various phenotypes, for example. Experimentation in labs is sufficiently robust, but

interpretation has been less efficient. In the last two or three years, there has been an unbelievable advancement in lab informatics, particularly regarding the phenotype of patients. Now, you can log the phenotype of your patients into a database to see if there are other patients with the same data. This is creating a more advanced capability to detect and define disease.

MH: There are two strong voices who should demand unification of data — clinicians and patients. I think patients will find their voice for that as soon as they learn the advantage of this. In our project, patients must carry a “kidney care pass” that contains their creatine level written by each physician who measures it. This is a lot for the patient to do. Carrying this piece of paper with them wouldn't be necessary if it had been done electronically and shared across health systems.

FL: When we discuss buy-in and trust, we're typically referring to administrators, clinicians and payors. But patients are another important piece of the puzzle. How do you see the lab's relationship with the patient evolving?

IY: In most systems, the clinician acts as an intermediary between the patient and the laboratory, so at the moment there's pretty limited opportunity for the laboratory to directly interact with the patient. However, I think that is likely to change. Increasingly, laboratorians are talking directly with patients, which brings both challenges and opportunities. As this trend grows, we have to

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TIPS FOR SUCCESS



Consider how your care project can improve the patient experience.

Patient satisfaction has become a factor in reimbursement and an increasing priority for administrators as the industry changes. Innovators should consider not only how their project can improve quality or reduce costs, but also how it can add to the patient experience. UNIVANTS winners positively affected patients by reducing unnecessary visits and providing diagnoses that improved accuracy, detail and efficiency.

consider, how can we — as laboratory professionals — aid the patient in understanding and interpreting the results that we generate?

TJ: We need to be better at explaining things in a simple manner. We're partly responsible in the way we report scientific data. If you look at abstracts for scientific papers, sometimes they emphasize things that are actually a small effect that may be or will be important to you as a scientist, but may cause the population-at-large to completely misinterpret what this information means to them, particularly when media present their own summaries with attention-grabbing headlines. I don't know exactly how to resolve that; it may need to happen at an individual level, using our own media input to explain in easy-to-understand terms what the research is saying.

MF: The patient is very important, but the influence of the patient in laboratory medicine is very low. You don't ever hear someone say, "I chose this hospital because they have the best lab." They don't imagine what the coefficient of variation is, or the critical difference among different tests. But there could be a point in the future when a patient says, "I'm going to this hospital because the lab has unified the data, and I don't need to bring my files with me because they're already there."

MV: But new tests may also be driven by patient demand, as is the one we're doing. In specific disease areas, you can engage the cohort of patients. For our project, which offers an advanced test that can rule out a woman's chance of pre-eclampsia, we've engaged women who have been admitted with suspected pre-eclampsia, not admitted or inappropriately sent home. Those patient advocates can be a very powerful voice. In some areas, patients won't necessarily ask for a test because they believe the doctor knows what they're doing. In Oxford, nearly every third



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Trust and transparency are key in building the significant, meaningful connections that are required to engage in healthcare transformation and secure buy-in from colleagues.

—FAWN LOPEZ

person works in the university, they all have a PhD and they have absolutely no qualms in asking you questions and testing your knowledge. In different healthcare settings, they may think, "I'm after an obstetrician, and I don't care where I have to go to see him, if he's offering the test I want, I will pay for it." So, I think that patient education will drive adoption of a lot of new tests, and for specific diseases, there's opportunity.

Collectively, these best practices and collaborative discussions foreshadow the future of healthcare, including essential competencies that care teams must leverage for success today. With special thanks to Abbott, IFCC, AACC, EHMA, Modern Healthcare, HIMSS, NAHQ and IHE, the UNIVANTS of Healthcare Excellence Award offers an exciting platform for spotlighting measurable excellence across the globe, and ideally, inspiring new teams to achieve similar success. If you and your teams want to learn more about the award or apply for 2020 recognition, visit www.UnivantsHCE.com for more details.

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