PIONEERING DIAGNOSTICS

LEARNING LOUNGE EXCLUSIVE:

AMR Awareness and Strategies Viewpoints Q&A Part 2

Viewpoints Series – bioMérieux Featured Experts:

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Viewpoint 2 of a 2-part Discussion

In the field of antimicrobial resistance (AMR), numbers and percentages are not just data points used for reference. They can, and do, inform physicians and pharmacists about key public health concerns that have local to global impact. In the case of AMR, identifying the gaps that need to be filled to reach an optimal point of consistent and sustainable preventative measures remains dire. In this Part 2 Learning Lounge exclusive Viewpoints interview, medical science liaisons, Brian R. Raux, Pharm.D., BCPS, BCIDP, and Patrick McDaneld, Pharm.D., BCIDP continue the discussion on the survey results of the *Antimicrobial Resistance Awareness and Strategies Among ID Physicians & Pharmacists Report*, released by The Sepsis Alliance,[1] regarding the challenges and solutions when it comes to combatting AMR in the United States.

bioMérieux Q1: While many factors can contribute to the rise of AMR, a continual issue identified is the problem of antibiotic overuse or misuse.[2] In your opinion, what's driving the ongoing inappropriate use of antimicrobials in the healthcare system? What are the most recent trends/concepts around antimicrobial stewardship that could help minimize unnecessary exposure to antibiotics?

Brian Raux: It's certainly multifactorial. One of the core tenets of medicine is to do no harm, so it might be easier to perceive giving a treatment to one patient for whom this antibiotic could have a potential beneficial outcome as erring on the side of caution. It is a little more difficult to see the societal and long-term harm of giving those antibiotics unnecessarily. So, structuring the balance of antibiotics today versus the lack of antibiotics for tomorrow could be really challenging. Some of the other components are that there's clinical inertia. We have been doing this for an exceptionally long time. Why do we need to change? What real benefit are we going to be getting? There are patient expectations that we need to acknowledge and manage. Particularly in the ambulatory setting, things are perceived as transactional. I'm going to the doctor. I'm going to get something out of this, including but not limited to an antibiotic prescription. Do things have to be transactional or are there other opportunities to behaviorally modify the way an appointment happens to change those outcomes?

Patrick McDaneld: Providers are rightly focused on the patient sitting in front of them and the central tenant of medicine, do no harm. Historically, antibiotics are thought of as basically no harm or very low risk of harm to that individual patient. So, the risk/benefit there, was almost always in favor of giving an antibiotic because there was no perceived downside to it. In the last five years or so, there has been better and better data coming out that shows on the individual patient level, there is a real risk of potential harm. Making sure that providers have that accurate information to effectively balance the risk/benefit for that individual patient in front of them, of the potential benefit of giving somebody an antibiotic they need, versus the potential harm of giving that antibiotic to that patient is much more relatable to your frontline provider in helping them connect to their role and stewardship.

bioMérieux Q2: As in many circumstances, patient education is sorely lacking when it comes to AMR. At the time of the survey, only 10% of participants reported that AMR patient education was being provided at their facility, yet 50% of pharmacists agreed that this was a viable opportunity to improve AMR knowledge. What could be done to support physician behavior change, and drive increased investment in AMR patient education as part of better care?

Brian Raux: I think there are campaigns that have seen some success, like the Be Antibiotics Aware campaign from the CDC or the types of campaigns focusing on where the patients are getting their care actually delivered. Some other potential opportunities are organizations and national advocacy groups/patient care groups that have seen success not only in the AMR space but also outside of the AMR space. Learning lessons from those groups and how they were successful, how can we parlay that into the AMR discussion? Like the pink ribbon campaign for Susan G. Komen, what is the AMR version

of that? The reach is there but figuring out how to do that is, is an opportunity for investment.

Patrick McDaneld: I think at the physician level, especially on the outpatient side, it is very difficult. They are so pressed for time just in terms of the sheer number of visits and all of the responsibilities they have to complete in a given day. I think you need to start looking outside of that and maybe it's other healthcare providers. Maybe it's involving more pharmacists, other nurses, and other providers who are already involved in patient care and already provide a lot of education. I think the outpatient space, is probably a much more productive avenue for educating the lay public.

bioMérieux Q3: While the availability of new drugs remains a hot topic, preservation of existing antimicrobials is a top priority. According to the survey, a lack of awareness about the Pasteur Act[3] presents a barrier for both. The U.S. bill, if passed, will incentivize the development of antibiotic and diagnostic stewardship guidelines to encourage the appropriate use of antibiotics. With this being a key feature of the bill, what can be done to increase voter support in the coming election year?

Brian Raux: There is a lack of understanding and education about the policy in general and how that's going to drive antibiotic development. Canada just came out with a document about their recommendations for implementing a pull incentive and provided a really nice executive summary that explains what is happening. Certainly, that is not a one-to-one to what the Pasteur Act is or what the Pasteur Act will become, but conceptually it explains what is happening in a way that someone who does not speak policy and government was able to understand. That is an opportunity to ultimately increase long term support. Make people understand because then they can care about it.

Patrick McDaneld: It is upping the baseline knowledge of the healthcare community around policy and advocacy issues. That is going to come from the various medical societies that are out there, whether that is the IDSA, SIDP, or other organizations. It is getting those organizations to teach their memberships about the space so they can have an educated conversation, but then also engaging their base to advocate for things when it is important for them one way or the other. The AMA is a classic example. They are very successful at getting their membership to advocate for their position and it is because they have taught their membership about what is going on, how to engage with their representatives, and made it easy for them to do that.

bioMérieux Q4: ID pharmacists and physicians responding to this survey felt strongly that the availability and improvement of rapid diagnostics in their facility and nationwide presented leading opportunities to improve AMR. What have been common barriers to diagnostic accessibility, both in the United States and globally? What advice would you give to a healthcare professional advocating for better antimicrobial stewardship solutions in their hospital?

Patrick McDaneld: The biggest barriers typically come down to knowledge and understanding of what a diagnostic does, how to implement it, and the costs versus value. It really is an important aspect of healthcare. How do you overcome those barriers? As a practicing person in a stewardship program, one of the easiest and most successful ways is to talk to your peers who have already been successful in advocating for a similar change in their facility. How do they do it? Who do they have to talk to? What messages resonated with the ID physicians, the hospitalists, the administrators, and finding out what was successful for them.

The other thing that people often neglect is looking for published literature examples that are out there too. In the last five to ten years, the amount of diagnostic centric ID literature out there has exploded exponentially. There used to be a real problem finding examples, but unless your technology of interest is brand new, chances are somebody else has published something about it that might give you an idea about how to implement it at your institution.

Brian Raux: There's so much opportunity for mixing between institutions of relying on what has worked. Let's say you are a site that uses the EMR Epic. You can go and look through what other sites have done for templates that are available, and you can just pull them into your own depending on what sharing is allowed. There's so much opportunity today for that. We need to do a better overall job of reaching out and asking and building these networks. Another option is to reach out to the company. There is a barrier in that there is a perception that talking to companies is bad. However, there are opportunities, specifically for medical affairs, to reach out to understand the nuances of the different diagnostics, about the appropriateness for different sites, and making some of those connections of places that have successfully implemented different things.

In terms of developing technology, developing new diagnostics, that meet the needs of not only high-income countries but also low- and middle-income countries, it is also important. It is certainly a technological barrier, but it is also an implementation barrier. We need to figure out how best to support things that are new and wonderful and how that impacts use worldwide.

bioMérieux Q5: How do you feel bioMérieux has uniquely risen to the challenge of AMR to provide real-time solutions that support antimicrobial stewardship initiatives to improve global public health?

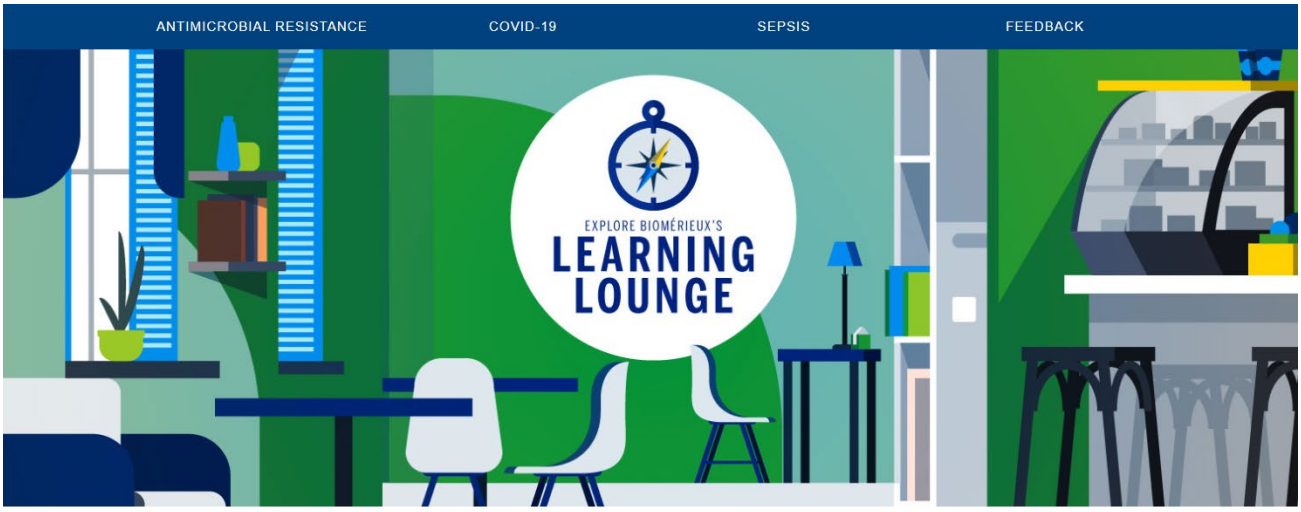
Patrick McDaneld: bioMérieux's support through its own Mérieux Foundation, where they are actively out supporting healthcare in low- and middle-income countries, has been such a core tenet of the company from its founding which is unique amongst the IVD businesses. Helping fund surveillance data can really make a difference for those facilities that don't have the resources to generate their own local data used to make local treatment guidelines. There's an opportunity for these facilities to enhance the care that they can provide. bioMérieux was founded with a different motivation and the family has maintained that throughout, which is really wonderful.

Brian R. Raux, Pharm.D., BCPS, BCIDP is a medical science liaison at bioMérieux focused on clinical infectious diseases. Before joining bioMérieux, Brian worked as a clinical pharmacist and antimicrobial steward at the Medical University of South Carolina. He has a Doctor of Pharmacy (PharmD) from Northeastern University and is passionate about medical education, patient care, and advancing antimicrobial stewardship practices through clinical research.

Patrick McDaneld, Pharm.D., BCIDP is a medical science liaison at bioMérieux, focused on clinical infectious diseases. Prior to joining bioMérieux, Dr. McDaneld was an infectious diseases clinical pharmacy specialist at the University of Texas MD Anderson Cancer Center Houston, TX. In addition to participating in direct patient, he served as the antibiotic stewardship team pharmacy lead and the infectious diseases residency program coordinator. Dr. McDaneld's areas of research interests include antimicrobial therapy and stewardship in immunocompromised patients, with several publications in these areas.

References:

1. Sepsis Alliance. Antimicrobial Resistance Awareness & Strategies Among ID Physicians & Pharmacists. Available at: https://cdn.sepsis.org/wp-content/uploads/2022/11/SA_Final_22-05042-Sepsis-Alliance_AMR-Awareness-Report-11.1.22.pdf. Published November 1, 2022. Accessed November 27, 2023.
2. Ventola CL. The antibiotic resistance crisis: part 1: causes and threats. *P T*. 2015;40(4):277-283. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4378521/
3. Text - S.1355 - 118th Congress (2023-2024): PASTEUR Act of 2023. Available at: https://www.congress.gov/bill/118th-congress/senate-bill/1355/texthttps://www.congress.gov/bill/118th-congress/senate-bill/1355/text. Published April 27, 2023. Accessed November 27, 2023.



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