

UNIVERSITY OF WISCONSIN-MADISON SCHOOL OF PHARMACY STUDENT WRITING CLUB:

PSW Member Spotlight: Lucas Schulz

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Lucas Schulz, PharmD, BCIDP, is the Clinical Coordinator of Infectious Disease at UW Health in Madison, Wisconsin. At UW Health, Schulz completed a PGY-1 pharmacy practice residency and PGY-2 residency in an area he was passionate about: critical care. After treating critically ill patients, many with septic shock, an infectious disease position opened and Schulz saw an opportunity to match his enthusiasm for the treatment of septic shock with his commitment to life-long learning. This new position challenged him to learn about the broad spectrum of infectious disease conditions in acute and ambulatory care, through on-the-job training and many nights of research and self-directed learning. He expanded his knowledge base by applying his learning during daily prospective patient reviews and patient care projects, and with the assistance of his pharmacist and physician colleagues. Early mentors, like Jeff Fish, PharmD; Philip Trapskin, PharmD; Barry Fox, MD; and David Andes, MD guided Schulz's development. An infectious diseases and stewardship focused program called Making A Difference in Infectious Disease (MAD-ID) strengthened his role in antimicrobial stewardship and infectious diseases. To this day, life-long-learning and continuous professional development remain important to Schulz's practice philosophy.

"A-Typical" Day

For Schulz, every day is different and presents a new challenge. As the clinical coordinator, he enjoys balancing strategic thinking and planning with finding creative solutions to the "little fires" that arise daily. His work is always guided by improving patient care and advancing pharmacy practice activities for patients across the UW Health enterprise. He is responsible and accountable for antimicrobial prescribing for inpatients, the emergency department, and ambulatory clinics. Prospective antimicrobial prescribing audits help keep Schulz knowledgeable about changing patient care practice. Monitoring prescribing trends and identifying when practice standards deviate is the key to ensuring all patients receive high-quality care. Schulz standardizes antimicrobial use by writing guidelines, creating order sets, and developing pharmacist and nursing delegation protocols. After setting pharmacy practice standards and putting clinical pharmacists in a position to succeed, he monitors to ensure that guideline interpretation, order set use, and delegated acts are appropriate. Finally, Schulz tracks and reports antimicrobial use and resistance trends across the enterprise. Creative solutions that improve patient outcomes; reduce the impact or development of antimicrobial resistance; or improve the financial health of the system are shared through scholarly activity. Schulz has over

100 published manuscripts and abstracts and an equal number of presentations.

When asked about work-life balance, Schulz prefers the term "work-life integration." "When you are a professional, you don't stop thinking about your patients and how to improve their care," says Schulz. "It is important to have time to relax and be away from work, but I find myself answering a call or page often to help a patient or physician in need." Infectious disease impacts all patient populations at UW Health. It is ubiquitous and covers every patient group, because "every patient is at risk" according to Schulz. He relies on a team of pharmacists to care for all the patients, and he interacts with his team daily. Infectious diseases pharmacists and physicians, surgeons, critical care and general medicine teams, microbiology lab directors and technicians, nursing teams, administrators, and patient care advocates all work together to solve complex problems caused by microscopic pathogens. Education regarding the misuse of antimicrobials, and how misuse drives antimicrobial resistance, is communicated to patients, caregivers, and hospital administration. His goal is to find the safest, most effective, and most fiscally responsible antimicrobial regime to treat





patients. Balancing safety, efficacy, cost, and social responsibility (selecting the antimicrobial least likely to drive resistance), is the basis of his daily work.

COVID-19 brought infectious diseases issues to the forefront of public discourse. Serving as an infectious diseases expert is also part of Schulz's role. Schulz is often asked for his professional opinion regarding the virus. As a volunteer youth baseball coach for his youngest children, he became a resource for parents on all things health and COVID-19-related. Schulz presents often for PSW and other state and national organizations as a content expert and enjoys being active and available when needed. He takes any opportunity he can get to go to legislative day and annual meetings, so he can continue to expand the pharmacist's role by talking to policy makers and networking with fellow pharmacists.

Setting Higher Standards

As a healthcare professional, it is crucial to improve patient outcomes via practice advancement. Schulz believes relationship development is the first step. For example, Schulz recently worked with the microbiology lab to increase pharmacists' roles in reacting to and modifying treatment

based on results of rapid diagnostic tests. In another example, Schulz led a project resulting in pharmacists increasing their accountability to the management of patients receiving certain medications, like vancomycin. Schulz says these practice advancement opportunities give UW Health pharmacists the ability to lead patient care management based on their unique professional knowledge and judgment, which results in increased job satisfaction. The success of clinical pharmacists in these spheres will continue to strengthen support for expansion of pharmacy services in other care settings. Schulz views pharmacy practice advancement through a value lens, constantly identifying opportunities to share value-added activities with hospital colleagues. Daily, he creates value by optimizing antimicrobials to provide the best patient outcomes (safety and efficacy) at the least cost to the patient and health system. He analyzes data comparing old antimicrobials to new antimicrobials and identifies what is best for the patient.

Continuous practice development and advancement started early in Schulz's career and is driven by improving patient outcomes and sharing success. Schulz and his team of ID pharmacists are residency

trained, completing either one or two years of training, and board-certified infectious disease specialists. Schulz continues to expand his knowledge by routinely interacting with and learning from information technology professionals, many of whom are pharmacists who transitioned into the technical world. The culmination of developing innovative and leading infectious diseases practice provides ample opportunities to publish their research so others can learn from shared success.

Adapting to Changing Times and Challenging the Status Quo

Navigating the healthcare system's complexities is challenging; COVID-19 magnified old challenges and exposed new ones. Schulz led the UW Health COVID-19 treatment guideline workgroup. This workgroup was charged with identifying treatment strategies based on emerging literature. Responding to rapidly evolving data about treatment strategies required Schulz to lead a large interdisciplinary team, which identified, evaluated, and disseminated contemporary recommendations. While treatment

guideline creation and implementation was not new, the pace of change was atypical. Relying on prior change-management experience was critical.

Schulz summarized his experience with change like this: First, change begins with identifying a problem. Ideas for new programs often occur organically for Schulz while discussing problems with infectious diseases colleagues and leaders. Membership in state and national societies, like PSW, are excellent resources for connecting with associates who experience common problems. Next, you need to generate a sense of urgency about the problem—why do we need to fix the problem and why is it important? Solution development requires collaboration across teams of healthcare professionals. Program implementation can be the most challenging, as this step requires risk-taking. Patient and/or provider response is unknown until this step. The program is evaluated based on benefits and how well it is perceived. Programs are never perfect and changes are always made to accommodate the ever-changing needs of patients.

Action Drives Motivation

What motivates Schulz's continued focus on improvement? "Action drives motivation.

Advancement is achieved by setting a big goal and taking small steps to get to the finish," says Schulz. Taking action on each step, whether successful or unsuccessful, motivates Schulz to the next stage. Learning from missteps and analyzing why a project did not go as planned is as important as a smooth and successful project.

Schulz sees wonderful opportunities for the pharmacy profession. Pharmacists should have full responsibility and accountability for patient outcomes associated with medication use across the spectrum of care. From acute care to ambulatory care and across transitions of care, a pharmacist should be present and engaged in the healthcare team. Pharmacists are starting to do this in infectious diseases with active participation in hospitals, ambulatory care, home health, long-term care, academia, and industry. Schulz values growing partnerships between academic medical centers and small and rural hospitals. He partners with industry leaders and policy-makers to determine and demonstrate the value of new antimicrobials. Pharmacists should be present whenever decisions about medications are discussed and made.

Schulz did not follow a traditional path into infectious disease, but he took a chance on a job opening that led him to a career that he enjoys and that places him in situations to develop and improve pharmacy practice opportunities each and every day.

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