IDWeek™ Daily News
Advancing Science, Improving Care
Saturday, October 2

The Official Daily Newspaper of IDWeek 2021

Saturday

Caroline B. Hall Lecture
10 —11:15 a.m. ET
See page 2.

Affiliated Events
11:30 a.m. — 1:15 p.m. ET
See page 16.

ID Bug Bowl
3 —4 p.m. ET

Sunday

Closing Plenary
11:20 a.m. — 12:50 p.m. ET

Don't miss the **ID**Week Virtual Career Fair.

Join us online on Thursday, Oct. 14 from 5-8 p.m. ET.

See page 15 for more information.

ID Can Impact Health Care Acquired Conditions

Health care acquired conditions have tremendous impacts, both in terms of patient care and financial costs. Infectious diseases clinicians can have a positive effect on both, if allowed to do so. But sometimes it means making a case.

"This is an emerging topic on the minds of many ID physicians because we are in this interesting and challenging place as a field," says Theresa Madaline, MD, chief quality officer for NYC Health and Hospitals, Coney Island. Dr. Madaline is presenting a talk and moderating the session "HACking the System: Making the Case for ID Compensation Through Harm Reduction" with Daniel McQuillen, MD. The session takes place at 10 a.m. ET Saturday.

HACking the System: Making the Case for ID Compensation Through Harm Reduction
Saturday, October 2
10 a.m. ET

"We are a specialty that typically does not do procedures. A lot of the work that we do does not end up generating large quantities of money for an institution but rather saving that institution money and enhancing patient care. That's hard to put a value on," Dr. Madaline says.

Dr. Madaline believes it is up to

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Inside This Issue...

Hall Lecture Explores Challenges of Vaccine Development

Betsy C. Herold, MD, Harold and Muriel Block chair in the Department of Pediatrics and professor and vice chair for research, Department of Pediatrics (Infectious Diseases) and Microbiology-Immunology at the Albert Einstein College of Medicine, will detail how serendipity and science can come together in the Caroline B. Hall Lecture at 10 a.m. Saturday.

Dr. Herold will discuss the challenges of developing a vaccine for herpes simplex virus, which "people have been working on for 40-50 years with limited success." Some have made it into Phase III clinical trials but never proved effective enough to warrant further development.

"One of things about all of those vaccine efforts was the thinking behind them that dominated the field," Dr. Herold says. That thought focused on antibody response, which needed to be neutralizing. But that didn't work for HSV. "When it gets into a cell, it can spread across little bridges. Even if you had antibodies surrounding that infected cell, it could transfer between cells anyway," she says.

That's where the "serendipity" comes in. "A little by accident, we decided to delete glycoprotein D from the cell. Because it is so important to the virus, the virus isn't able to infect the cell," says Dr. Herold. Without gD, "the virus can't spread anywhere else."

Betsy C. Herold, MD

Taking that understanding of immune responses further, Dr. Herold has found applicability in SARS-CoV-2, particularly with children: "The kids have a much better innate response to SARS-CoV-2 than adults. This highlights the need to look at all aspects of the immune response. The specific adaptive response clearly is not sufficient for a protective vaccine."

Giving the lecture named for Caroline B. Hall is "mostly humbling," Dr. Herold says. Early in her career, she heard Dr. Hall speak. "She was an amazingly inspirational person," adds Dr. Herold. "In addition to her breakthrough work on other viruses, she also was a poet, and she used to get up at the end of her talks and give a poem that she had written. I confess I do not have that talent."

Poetry aside, Dr. Herold believes it is "important to the field that we acknowledge new areas of investigation in ID and share the excitement of the field with the next generation of scientists. I am excited to share how we found this by accident and inspire people to take advantage when you see something."

IDWeek Abstracts Available On Demand

IDWeek 2021 features more than 1,650 studies through virtual poster and oral abstract presentations across all areas of infectious diseases. All 2021 oral and poster abstract presentations are available to view on demand.

To view abstract text and PowerPoint presentations with audio (for oral abstracts) or posters and audio (for posters), visit the Online Program. Logged-in users can "favorite" any abstract by clicking on the star next to its title. Abstracts you have designated as a favorite can be accessed from your personal My Schedule page.

Have questions for the authors? Presenters that have chosen to participate in the chat-based question and answer functionality will be asked to respond to questions Sept. 29-Oct. 3. Authors taking part in Q&As will have a "Q&A and Discussion" button visible at the bottom of their abstract. After clicking the button, you can use the "Questions" tab to ask questions of the author and the "Discussion" tab to discuss the abstract with other attendees. The Q&A and Discussion features will be open through Oct. 13.

All **ID**Week 2021 abstracts will also be published this fall in *Open Forum Infectious Diseases*.

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Renal dysfunction, acute renal failure, osmotic nephrosis, and death may occur with the administration of Immune Globulin Intravenous (Human) (IGIV) products in predisposed patients.

Renal dysfunction and acute renal failure occur more commonly in patients receiving IGIV products containing sucrose. ASCENIV does not contain sucrose.

For patients at risk of thrombosis, renal dysfunction or renal failure, administer ASCENIV at the minimum dose and infusion rate practicable. Ensure adequate hydration in patients before administration. Monitor for signs and symptoms of thrombosis and assess blood viscosity in patients at risk for hyperviscosity.

Contraindications
ASCENIV is contraindicated in:

- Patients who have had an anaphylactic or severe systemic reaction to the administration of human immune globulin.
- IgA-deficiency patients with antibodies to IgA and a history of hypersensitivity.

Warnings and Precautions
Severe hypersensitivity reactions may occur with IGIV products, including ASCENIV. In case of hypersensitivity, discontinue ASCENIV infusion immediately and institute appropriate treatment. Patients with known antibodies to IgA may have a greater risk of developing potentially severe hypersensitivity and anaphylactic reactions.

Thrombosis may occur following treatment with immunoglobulin products and in the absence of known risk factors. Consider baseline assessment of blood viscosity in patients at risk for hyperviscosity and ensure adequate hydration before administration. For patients at risk of thrombosis, administer ASCENIV at the minimum dose and infusion rate practicable. Monitor for signs and symptoms of thrombosis and assess blood viscosity in patients at risk for hyperviscosity.

Acute renal dysfunction/failure, osmotic nephrosis, and death may occur upon use of human IGIV products. Ensure that patients are not volume depleted before administering ASCENIV.

Periodic monitoring of renal function and urine output is particularly important in patients judged to be at increased risk of developing acute renal failure. Assess renal function, including measurement of blood urea nitrogen (BUN) and serum creatinine, before the initial infusion of ASCENIV and at appropriate intervals thereafter. Discontinue ASCENIV if renal function deteriorates. In at risk patients, administer ASCENIV at the minimum infusion rate practicable.

Hyperproteinemia, increased serum viscosity, and hyponatremia or pseudohyponatremia may occur in patients receiving IGIV treatment, including ASCENIV. It is critical to clinically distinguish true hyponatremia from a pseudohyponatremia that is associated with or causally related to hyperproteinemia. Treatment aimed at decreasing serum free water in patients with pseudohyponatremia may lead to volume depletion, a further increase in serum viscosity, and a possible predisposition to thrombotic events.

Aseptic meningitis syndrome (AMS) may occur with IGIV treatments, including ASCENIV. AMS usually begins within several hours to 2 days following IGIV treatment. AMS may occur more frequently in association with high doses (2 g/kg) and/or rapid infusion of IGIV. Conduct a thorough neurological examination on patients exhibiting signs and symptoms of AMS, including cerebrospinal fluid (CSF) studies, to rule out other causes of meningitis.

IGIV products, including ASCENIV, may contain blood group antibodies that can act as hemolysins and induce in vivo coating of red blood cells (RBCs) with immunoglobulin, causing a positive direct antiglobulin reaction and hemolysis. Monitor patients for clinical signs and symptoms of hemolysis, including appropriate confirmatory laboratory testing.

Non-cardiogenic pulmonary edema may occur with IV administered IG. Monitor patients for pulmonary adverse reactions. If suspected, perform appropriate tests for presence of anti-neutrophil in both product and patient serum. May be managed using oxygen therapy with adequate ventilatory support.

Because ASCENIV is made from human blood, it may carry a risk of transmitting infectious agents, e.g., viruses, the variant Creutzfeldt-Jakob disease (vCJD) and theoretically, the Creutzfeldt-Jakob disease (CJD) agent. All infections suspected by a physician to possibly have been transmitted by this product should be reported to ADMA Biologics at **(1-800-458-4244)**.

After infusion of immunoglobulin, the transitory rise of the various passively transferred antibodies in the patient's blood may yield positive serological testing results, with the potential for misleading interpretation. Passive transmission of antibodies to erythrocyte antigens (e.g., A, B, and D) may cause a positive direct or indirect antiglobulin (Coombs') test.

Adverse Reactions
The most common adverse reactions to ASCENIV (≥5% of study subjects) were headache, sinusitis, diarrhea, gastroenteritis viral, nasopharyngitis, upper respiratory tract infection, bronchitis, and nausea.

You are encouraged to report side effects of prescription drugs to ADMA Biologics @ 1-800-458-4244 or the FDA. Visit www.fda.gov/MedWatch or call 1-800-FDA-1088.

For additional safety information about ASCENIV, please see full Prescribing Information.

ADMA BIOLOGICS

COVID Causes Havoc for People Living with HIV

Add HIV to the list of things impacted by COVID. Clinicians like Ellen Eaton, MD, and Albert Liu, MD, MPH, saw this impact on their patients daily.

They will join Barbara S. Taylor, MD, MS, in discussing "The Impact of COVID on the HIV Care Continuum," at 10 a.m. ET Saturday. Dr. Taylor will focus on COVID's effects on HIV treatment and care. Wendy Armstrong, MD, professor of medicine at Emory University, will moderate the session.

Dr. Liu, clinical research director at the San Francisco Department of Public Health's Bridge HIV, focuses on how COVID-19 changed HIV prevention and diagnosis. "During shelter-in-place orders, COVID-19 resulted in a number of clinic closures and interruptions to public transportation, which impacted access to HIV and sexually transmitted infections testing and sexual health services, including PrEP," he says.

The natural outgrowth was a decline in HIV and STI testing as well a "substantial number" of PrEP discontinuations. While some of this has improved with reopenings, it still remains "below baseline levels across a number of settings. A number of studies have reported ongoing sexual risk during the pandemic, which highlights the importance of continuing to provide access to HIV/STI testing and sexual health services," Dr. Liu says.

Clinicians got creative, including offering at-home HIV and STI testing programs and linking opt-out HIV testing to SARS-CoV-2 testing. It meant telemedicine, extended refills for PrEP, home delivery of medications and other programs.

Creativity also was required for dealing with people with HIV who also had opioid abuse disorder. Dr. Eaton, assistant professor at the University of Alabama Birmingham, saw challenges.

"I'm still seeing a lot of patients whose appointments have been canceled or pushed out to 2022 for things like diabetes, things that need to be managed," Dr. Eaton says. "Even people with HIV who are otherwise pretty well, it's hard to keep them well when things like colonoscopies are delayed."

But those with opioid abuse disorder have had an even harder time. "I've had a couple who have passed away and several I don't know where they are," Dr. Eaton says. Treatment is compounded by housing insecurity and economic turbulence: "A lot of these people, life was a crisis, a public health emergency, before the pandemic. Then you add this additional insult. Multiple things are keeping them from the stability they need."

Continuing services has been vital. "For a lot of our patients with HIV or opioid abuse disorder, our clinic is the most stable thing in their life," Dr. Eaton says. "It's been so important for us to keep something open."

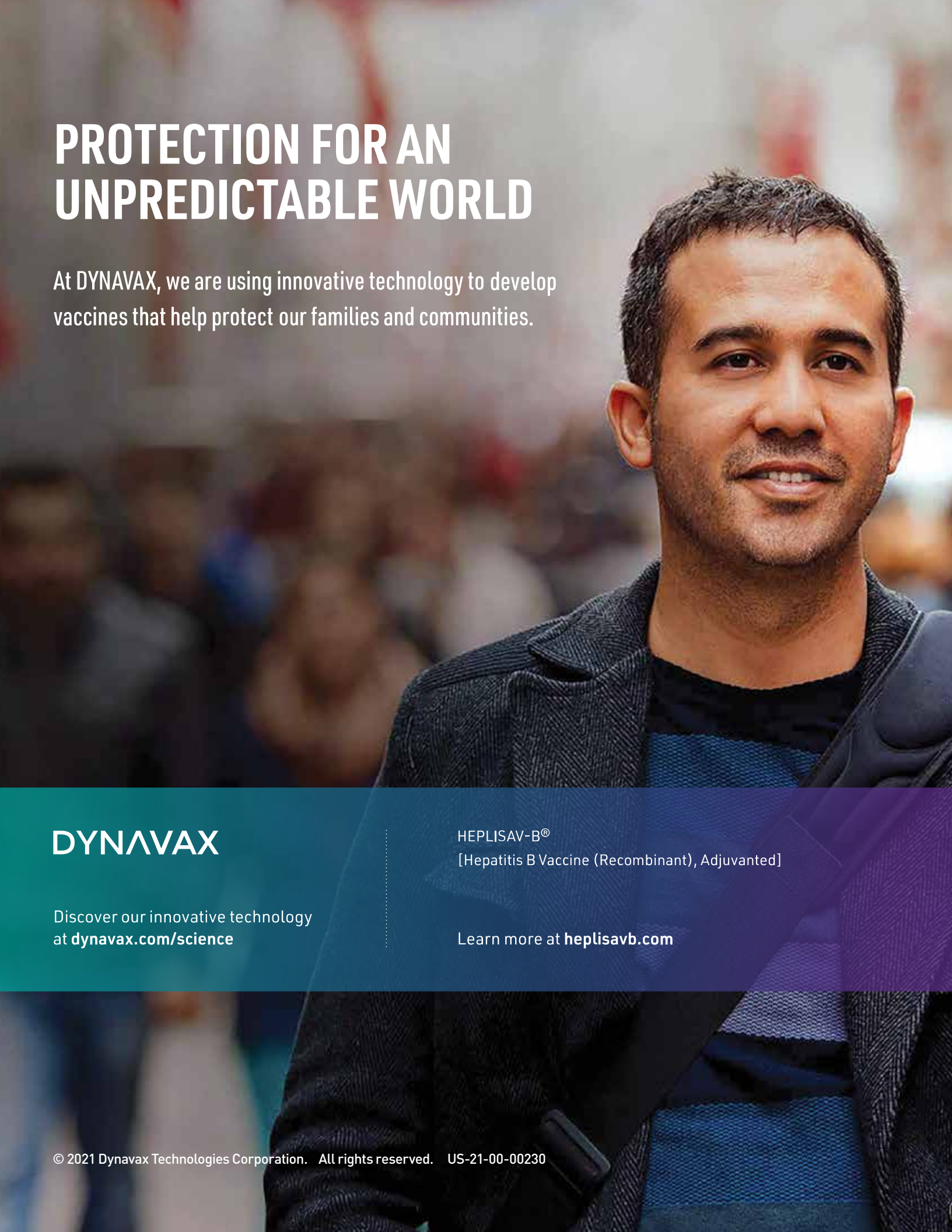
The Impact of COVID on the HIV Care Continuum
Saturday, October 2
10 a.m. ET

Dr. Eaton believes other challenges will come, requiring the need to "pandemic-proof systems of care." It means getting creative, like working outside of normal clinic hours to meet the patient where they are. "It is having a deep experience and knowledge of the population you're working with," she says.

With some of her patients living several hours away, telehealth has been an option, so that they don't have to take off work or find childcare.

Obstacles remain around telehealth, for those without access to broadband internet, insurance coverage for home testing and "COVID fatigue," as Dr. Liu puts it. It isn't just clinicians and staff who are tired, though. Dr. Liu sees patients "no longer taking COVID precautions during sex."

He hopes attendees realize "that sexual health services, including HIV/STI testing and PrEP, are essential services and critical to continue during the pandemic due to ongoing sexual risk" and also walk away with "awareness of innovative strategies to support HIV/STI testing and PrEP continuation and use of harm reduction messaging for safer sex during COVID."



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Finding the Right Treatment Length: How Low Can You Go?

Antibiotic stewardship requires a delicate balance: prescribe a course of treatment that has the optimal results for the patient without going overboard and potentially doing harm.

The latest research into three infection categories show that there are opportunities to lessen the length of treatment without impacting patient care. That was the topic of Thursday's session "How Low Can We Go? Optimizing Duration of Therapy."

"We don't want to treat for too short a time or too long," said Robert Fowler, MDCM, MSc, professor of medicine at Sunnybrook Health Sciences Centre. "Treatment beyond cure exposes patients to harm without benefit."

Dr. Fowler explored shorter treatments for gram-positive and gram-negative bloodstream infections. One research project asked infectious diseases specialists and critical care specialists how long they thought a patient with various syndromes leading to bacteremia should be treated.

"A few chose five days. Most chose seven, 10 or 14, and a few chose 21," Dr. Fowler. "There is nothing biologically that this should be the right answer."

Using biomarkers doesn't always provide answers when it comes to determining whether a patient has overcome an infection. "What happens when you use procalcitonin as a marker to say, 'Is the infection over or not?'" asked Dr. Fowler. "We would say that over 80% of the patients would continue antibiotics at seven days and 50% for 14 days, if we focused solely on that number. That leads to us to think that biomarkers are only going to be part of that story."

He highlighted a trial, a "terrific study over many years," looking at gram-negative bacteremia in non-critically ill hospitalized patients. He said it offered "very

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More Viral Diseases on the Horizon

If COVID-19 fatigue is real, just wait. With more than 300 emerging infectious disease events in the last 60 years and no signs of that trend slowing down, more outbreaks are coming.

The session "Genomics for Emerging (Zoonotic) Viral Diseases" looked at the increase in such events and what needs to be done to prepare.

Ann Powers, PhD, virology team lead with the Centers for Disease Control and Prevention, opened the session with this note: "Events are becoming more and more frequent and closer together."

Dr. Powers looked at tick-borne diseases and viral examples of emergence and "how we haven't been prepared for them."

Since April 2016, chikungunya has spread to the point where it "is a pan-global pathogen at this point," Dr. Powers said. ChikV first appeared in the Americas in 2013. "Within the first three years, there were 2.3 million infections spanning 45 countries."

Because chikungunya was circulating in Asia before it came to the Americas, "this allowed us to be prepared," she said.

The emergence of the Zika virus in 2007 was more unexpected. An initial outbreak in Uganda in the 1950s was followed by a small outbreak in the Yap Islands. By 2015, it had emerged in Brazil and the World Health Organization called it a public health emergency of international concern.

"Because we didn't understand the significance of the virus, the preparedness level wasn't what it was for chikungunya," said Dr. Powers.

> "Look for fault lines in nature: people who work in local markets, or people who build into green areas. ... That can allow disease to emerge."
> — Edward Holmes, PhD

With those two viruses as a backdrop, Dr. Powers looked at what's next. CDC's Arboviral Disease Branch aims to be more prepared and create strategies

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Shining a Light on Social Determinants of Health

COVID-19 put a bright spotlight on inequities in health care, but they existed long before the pandemic began.

The session "Culturally Competent Community Engagement Strategies: Social Determinants of Health" explored the issues driving inequity and potential solutions from a variety of angles.

Damani Piggott, MD, PhD, associate professor of medicine and epidemiology and associate vice provost for graduate diversity and partnerships at Johns Hopkins University, discussed the historical impacts of systematic inequities. Using the lens of COVID-19, he shared the increased rates of infections and hospitalizations based on race and ethnicity as well as those disadvantaged by substance abuse disorders, incarceration or housing instability.

COVID-19 is hardly the first crisis worsened by health disparities. Dr. Piggott noted that Blacks in particular have long had a lower life expectancy than other races and ethnicities at the same educational strata.

"It has been considered that these have been fueled by unequal allocation of resources and opportunities," Dr. Piggott said. This may include labor market and income, educational access, school segregation, housing and mortgage markets and the criminal justice system.

He focused on historical residential segregation. "Some suggest the elimination of residential segregation could remove Black-White differences in income and health outcomes," said Dr. Piggott.

> "What we have seen is the systemic disinvestment in public and private sectors within segregated Black neighborhoods."
> — Celia Maxwell, MD, FACP, FIDSA

Celia Maxwell, MD, FACP, FIDSA, associate dean for research at Howard University College of Medicine, dug more deeply into the challenges around neighborhoods.

"What we have seen is the systemic disinvestment in public and private sectors within segregated Black neighborhoods. Some would argue it doesn't exist," she said. Racially segregated neighborhoods often have had limited or substandard care, she added. With the COVID pandemic, such neighborhoods were impacted not only by the increased risk of infection, but vaccine hesitancy, which "may still be underestimated."

Dr. Maxwell offered solutions to achieving health equity: "We must first name and identify structural racism where it exists and then challenge and dismantle the structural racism that shapes upstream governance, social structures and policies that perpetuate ideologies and perpetuate persistent disparities."

This means improving conditions that impact health in workplaces, neighborhoods and schools as well as improving educational quality and graduation

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PIDS World Antimicrobial Awareness Week (WAAW) Webinar, feat. Dr. Hanan Balkhy, WHO

Antibiotic resistant bacteria jeopardize much of the progress modern medicine has made. PIDS will host a webinar on November 22, 2021, addressing the threats of antimicrobial resistance.

Dr. Hanan Balkhy, Assistant Director-General for the Antimicrobial Resistance Division (AMR) at the World Health Organization, will be our featured speaker.

- World Antimicrobial Awareness Week webinar
- Dr. Hanan Balkhy, featured speaker
- Monday, November 22, 11:00 a.m. ET

Pre-register for the webinar today!

In the fight against recurrent *C. diff*, a key goal is to

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- After the first *C. diff* recurrence, a patient's risk of subsequent recurrences increases to >40%[5]
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- A disrupted microbiome can produce a favorable environment for the unaffected dormant *C. diff* spores to rapidly germinate and grow[6–11]

While there are no FDA-approved therapeutic options with the ability to repopulate the microbiome today, ongoing research is investigating microbiome restoration for the future[2,6,12]

CdiffSequels.com

References: 1. McGovern BH, Ford CB, Henn MR, et al. *Clin Infect Dis.* 2021;72(12):2132-2140. doi:10.1093/cid/ciaa387. **2.** Chilton CH, Pickering DS, Freeman J. *Clin Microbiol Infect.* 2018;24(5):476-482. doi:10.1016/j.cmi.2017.11.017. **3.** Isaac S, Scher JU, Djukovic A, et al. *J Antimicrob Chemother.* 2017;72(1):128-136. doi:10.1093/jac/dkw383. **4.** Haak BW, Lankelma JM, Hugenholtz F, Belzer C, de Vos WM, Wiersinga WJ. *J Antimicrob Chemother.* 2019;74(3):782-786. doi:10.1093/jac/dky471. **5.** Kelly CP. *Clin Microbiol Infect.* 2012;18(suppl 6):21-27. doi:10.1111/1469-0691.12046. **6.** Budi N, Safdar N, Rose WE. *FEMS Microbes.* 2020;1(1):1-8. doi:10.1093/femsmc/xtaa001. **7.** Lewis BB, Buffie CG, Carter RA, et al. *J Infect Dis.* 2015;212(10):1656-1665. doi:10.1093/infdis/jiv256. **8.** Chang JY, Antonopoulos DA, Kalra A, et al. *J Infect Dis.* 2008;197(3):435-438. doi:10.1086/525047. **9.** Theriot CM, Young VB. *Annu Rev Microbiol.* 2015;69:445-461. doi:10.1146/annurev-micro-091014-104115. **10.** Theriot CM, Bowman AA, Young VB. *mSphere.* 2016;1(1):e00045-15. doi:10.1128/mSphere.00045-15. **11.** Gerding DN, Kelly CP, Rahav G, et al. *Clin Infect Dis.* 2018;67(5):649-656. doi:10.1093/cid/ciy171. **12.** Wilcox MH, McGovern BH, Hecht GA. *Open Forum Infect Dis.* 2020;7(5):1-6. doi:10.1093/ofid/ofaa114.

Visit the 2021 IDWeek Virtual Learning Lounge
Friday, October 1 | 2:00–2:45 PM ET

Perspectives on the pathogenesis of recurrent *Clostridioides difficile* infection: insights into microbiome science

Sponsored by Seres Therapeutics, Inc.

Presenter: Paul Feuerstadt, MD, FACG, AGAF
Assistant Clinical Professor of Medicine
Yale University School of Medicine
PACT-Gastroenterology Center, Hamden, CT

DA-CDI-US-001-B 9/21

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Health Care Acquired Conditions

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ID clinicians to understand that value and to be able to share that with their institutions.

Two of the speakers will help do that, while the third will provide a broad-based argument for compensating physicians based on harm reduction.

Inessa Gendlina, MD, PhD, assistant professor at Albert Einstein College of Medicine, will share her "incredibly innovative work" on *C. difficile* and her model TEP, temporary enteric precautions, Dr. Madaline says.

Trish Perl, MD, MSc, professor and Jay P. Sanford Chief of Infectious Diseases and Geographic Medicine at University of Texas Southwestern Medical Center, "will focus on taking work like that and other work that ID physicians are doing and make the case for alternative models for ID in the future," Dr. Madaline says. That can include things like making the case for epidemiology and stewardship, or an ID hospitalist model.

For her portion, Dr. Madaline will explore the role of vascular access specialists in CLABSI reduction, something she worked on at a prior institution: "We started to look at this question of access: Why are we seeing so many central lines? When we started to speak to clinical care, we began to understand the problem and to develop a model that takes into account safety and making sure people have access when they need it."

With that at the foundation, the team began making a business case. "There are direct costs for the patient as well as other costs of treatment and care. There also are large penalties from the Centers for Medicare and Medicaid Services. We know this is a bad thing and we know that it can be prevented in many cases, using a standard set of interventions and strategies, but sometimes we fail to do that," she says.

Building a team of vascular specialists can reduce those costs and bring benefits, including reduced cases of CLABSI, Dr. Madaline says. "They also can establish the right access in the patient and help provide physician support and assist with maintenance of catheters. This is supported by the literature."

But there are barriers, too. She notes, "An institution would have to hire people or appoint people. The counter argument is always, 'it costs money.'"

In her work, Dr. Madaline was able to put dollar figures around the costs and savings that came along with the vascular access team. She also deflated the argument that EPIC could perform the same tasks as a vascular access team. "We built decision support in EPIC and watched what happened to the appropriateness of lines," she says. "It did not do what they hoped it would do. That is not the solution."

ID clinicians can be a large part of the solution, though.

"I think this is really the future of ID and what we all need to be thinking about as we move forward," says Dr. Madaline. "We are all moving, whether we like it or not, to more of a value-based system of health care. It behooves us to be at the front of that and to really be thinking creatively about how we can be part of it and contribute to innovative solutions to problems."

Mark Your Calendar Now for IDWeek 2022

Plan now to attend **ID**Week 2022, Oct. 19-23, 2022, in Washington DC. **ID**Week 2022 will feature the state-of-the art science and timely content you expect from the premier infectious diseases event as well as can't-miss networking and career opportunities for all health care professionals in ID and healthcare epidemiology and prevention.

Exhibitor and partner opportunities to host sessions, exhibit, support and promote industry content during the event will launch in January 2022.

Visit idweek.org for on-demand access to 2021 and 2022 event information as it becomes available. We look forward to seeing you there!

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1. Voigt, Andrew, et al. Rising Rates of Cardiac Rhythm Management Device Infections in the United States: 1996 through 2003. JACC Vol. 48, No. 3, 2006: 590-1.
2. Dai, Mingyan, et. al. "Trends of Cardiovascular Implantable Electronic Device Infection in 3 Decades: A Population-Based Study." JACC: Clinical Electrophysiology (September 2019).

PIDS Provides Free Educational Resource to Train Strong Vaccine Advocates

Vaccinating children against infectious diseases is one of the most effective public health interventions of modern times, saving millions of lives in the U.S. every year. These benefits, however, are threatened when immunization rates drop, either because of vaccine hesitancy among parents or, more recently, because of disruptions to health care delivery due to the COVID-19 pandemic.

In response, the Pediatric Infectious Diseases Society, in collaboration with partners at Children's Mercy Kansas City in Kansas City, Missouri, and Vanderbilt University Medical Center in Nashville, Tennessee, launched *Vaccine Education from Training to Practice*, a new educational program designed to provide health care providers with training and resources to be strong advocates for childhood immunizations and support high immunization rates.

This free online educational curriculum and electronic resource is designed for pediatric and family medicine residents, fellows in training and anyone interested in vaccine education, including practicing physicians, nurse practitioners, pharmacists and others. The program includes a curriculum created by the Collaboration for Vaccination Education and Research (CoVER) that has been shown to improve vaccine knowledge and confidence when counseling parents about immunizing their children.

The program's nine online educational modules cover vaccine fundamentals, vaccine safety, vaccine preventable diseases, vaccine communication, HPV, influenza, COVID-19 vaccines, bacterial meningitis and travel vaccines. This content is now available on the PIDS website, along with the latest edition of the Vaccine Handbook App, which contains the full content of *The Vaccine Handbook: A Practical Guide for Clinicians*, also known as "The Purple Book."

Accessible on iOS and Android devices, the Vaccine Handbook App includes new content on vaccines to prevent COVID-19 as well as updates on the science of in vivo expressed subunit vaccines, emergency use authorization for vaccines and maintaining routine immunizations during the pandemic. Timely updates on other vaccines and related issues, including how to address concerns, are also provided.

"The goal is to provide a comprehensive vaccine education program to remedy knowledge gaps along the spectrum of professional development for trainees and clinicians," says PIDS President Kristina Bryant, MD, FPIDS. "Our vision at PIDS is freedom from infection for all children, including freedom from vaccine-preventable diseases. Our partnerships with CoVER and the handbook app further that vision."

The CoVER modules and TVH app are available free of charge through unrestricted educational grants to the PIDS Foundation from GlaxoSmithKline; Merck & Co., Inc.; Sanofi Pasteur US; Pfizer, Inc.; Seqirus USA, Inc.; and Valneva USA, Inc.

Apply for HIV Clinical Fellowship Opportunity

The HIV Medicine Association and the IDSA Foundation are accepting applications for the 2022–2023 HIV Clinical Fellowship training year. The award includes a stipend set according to the PGY-4 salary level at the training institution, funds to cover the fringe benefits provided by the sponsoring organization and an additional $5,000 to support educational opportunities or offset administrative costs. Up to two fellowships will be awarded.

The application period will close on Nov. 8.

Program and application requirements are on the HIVMA website, including recommended competencies for HIV clinical fellows.

Email HIVMA staff with questions or for more information.

COVID-19 Real-Time Learning Network

A collaborative, multidisciplinary response is critical to optimally manage patients with COVID-19. Launched by IDSA in September 2020 with funding from the Centers for Disease Control and Prevention, the COVID-19 Real-Time Learning Network brings together the latest clinical guidance, institutional protocols, clinical trials data, practice tools and resources from a variety of medical subspecialties around the world.

Stewardship

Continued from page 6

good supportive evidence to say that folks are on the right track in looking for shorter treatments."

Kate Dzintars, PharmD, clinical pharmacy specialist, infectious diseases at The Johns Hopkins Hospital, focused on shorter treatments for urinary tract infections, including pyelonephritis.

It is a complex treatment area, especially since baseline antibiotic resistant *E. coli* is increasing at a time when incidence of community acquired *E. coli* UTIs is also increasing. It's not a well-studied area, since treatment guidelines are outdated and have been archived.

She discussed the success of short-course medications, including nitrofurantoin as well as first- and extended-generation cephalosporins in treating less complicated UTIs.

Sameer Kadri, MD, MS, FIDSA, intensivist and head, Clinical Epidemiology Section, Critical Care Medicine Department at the National Institutes of Health Clinical Center, looked at shorter treatments for respiratory infections. He looked at three types of pneumonia: community acquired, hospital acquired and COVID-19.

Before COVID-19, about 1 million people were hospitalized annually for pneumonia and one in four of them required intensive care treatment. Of those in the ICU, about 25 percent died.

"Many trials have shown that shorter courses are non-inferior to longer treatments," Dr. Kadri said. "How much of this has made it to real world practice?" Not a lot, apparently. A 2015 study found that 80 percent of treatments deviated from recommendations. Only 15 percent of patients received less than eight days of treatment.

> "Treatment beyond cure exposes patients to harm without benefit."
> – Robert Fowler, MDCM, MSc

"Pneumonia is a huge problem, and reducing antibiotic use by one or two days can have a huge impact," Dr. Kadri said.

Inequities

Continued from page 8

rates and improving the quality of housing and neighborhood environments, she added.

Kristen Feemster, MD, MPH, MSHP, adjunct associate professor of pediatrics, infectious diseases at the University of Pennsylvania Perelman School of Medicine, dove more deeply into exploring community factors that impact health.

Using vaccination rates as a platform to explore the topic, Dr. Feemster looked at the rates of vaccination for the combined seven-vaccine series in those with private insurance (76.9%), Medicaid (65.7%) and those with no insurance (50.6%). Those living at or above poverty (74.1%) also had an increased rate of vaccinations compared to those living below the poverty line (62.0%).

"When considering disparities, it may not be individual characteristics," she said. "Community characteristics also may play a role." Variability in immunization rates differ by neighborhoods, according to a survey of children born in Philadelphia.

Community can be influenced by limited access to resources among lower income individuals and differences in social supports. The built environment might influence behaviors that can decrease the likelihood of adopting preventive measures.

Rachel Civen, MD, MPH, medical director, Community Health Services, Los Angeles County Department of Public Health, looked at racial, health and socio-economic disparities primarily in Los Angeles County. An incredibly vast and diverse population, Los Angeles County had seen four peaks in COVID, with the largest peak in mid-December through the end of January.

Vaccination was prioritized in communities with the highest levels of social and health inequities. It meant overcoming obstacles like technology, transportation issues, location sites and issues with clarification on documentation needed.

While much of the county was able to get to mega vaccination sites, "these were a significant problem for communities of inequity," Dr. Civen said. To overcome that, the county partnered with medical providers working in these communities. To date, 278 federally qualified health centers and community clinics are enrolled in the program, she said. These facilities changed to closed appointments and moved from drive-up to walk-up. Taxi and Uber vouchers were provided.

Similar strategies were designed to meet needs of older adults, particularly those who were homebound. The city fire department sent EMTs house to house to provide vaccines. Home health agencies also were on board.

A mobile vaccine clinic filled in gaps, providing vaccinations at diverse sites like faith-based organizations, work sites, senior housing and centers, shelters and homeless encampments.

"There has been steady progress in COVID-19 coverage in persons in all age groups and racial groups," she said. Still, challenges remain, including a fear of vaccination, skepticism and individual liberty demands: "With many mandates coming to the fore, it is hoped that we'll continue to close this gap."

IDSA and SHEA Release New Guidelines for Managing *C. diff* Infection

New evidence-based clinical guidelines on the management of *Clostridioides difficile* infection in adults have been developed by a multidisciplinary panel representing IDSA and SHEA.

The guidelines provide recommendations for health care professionals who care for adults with CDI, including specialists in infectious diseases, gastroenterologists, hospitalists, pharmacists and any clinicians and health care providers caring for these patients. Updates include three recommendations on suggested treatments for patients with initial and recurring CDI episodes, based on new data for fidaxomicin and for bezlotoxumab, a monoclonal antibody targeting toxin B produced by *C. difficile*.

The recommendations are grounded in a rigorous, systematic review of available evidence and an assessment of the benefits and harms of alternative care options. The panel adhered to the Grading of Recommendations Assessment, Development and Evaluation approach to assess the certainty of the evidence and strength of recommendations. The guidelines are intended to aid clinicians in determining which treatments are best for individual patient scenarios.

2021 IDWeek Virtual Career Fair Offers the Year's Best Networking Opportunity

Seize your chance to network with potential employers at the **ID**Week Virtual Career Fair. Join us online on Oct. 14 from 5-8 p.m. ET to meet with private practice employers, group practices, hospitals, health systems and other recruiters from around the U.S. in a low-pressure online environment. This event is free for job seekers to attend.

During the virtual career fair, you can view employer profiles and browse general infectious diseases, HIV medicine and subspeciality positions. A live chat feature will allow you to privately interact with employers on either desktop or mobile devices.

If you're about to complete your training, or just seeking a new opportunity, you'll want to be part of the **ID**Week Virtual Career Fair. Register today.

Can't attend on the live date? You can still search for and apply to job openings through **ID**Week partner societies' career centers. Access all of them in one easy place through the **ID**Week Careers page.

Looking to recruit top talent? Employers can learn more and participate. Review the packages available.

Viral Diseases

Continued from page 7

for when an emerging pathogen should be considered a public health risk. "There are hundreds of pathogens moving out there," Dr. Powers said. "We decided it would be a public health risk if there was critical evidence of increasing case numbers, evidence of increasing distribution, significant human illness and the evidence of potential vectors."

Gayani Tillekeratne, MD, MSc, assistant professor of medicine at Duke University, looked at how pathogens become potential pandemics.

"It's been well documented that as many as 60 to 70% of emerging infections in humans are zoonotic in origin. Increasingly, wild animals are the origin," she said. RNA viruses are what are emerging, primarily thanks to a "higher capacity to adapt to human hosts."

Habitat destruction is a driver in the increase in viral zoonoses from wild animals, she said: "Habitat destruction has caused more human interaction." Commercial trade in wild animals, farming and captivity have increased human/wildlife contact. Dr. Tillekeratne cited a study that showed more than 500 species of animals that were kept in captivity for commercial purposes in China alone.

Edward Holmes, PhD, ARC Australian laureate fellow at the University of Sydney, looked at how metagenomics can be used to understand how pathogens jump species. "If you take the natural world, there are places where humans and animals interact," he said. "It's a bit like fault lines in earthquakes. You can think of the same analogy with emergence. Look for fault lines in nature: people who work in local markets, or people who build into green areas. That's a fault line. That can allow disease to emerge."

SHEA Offers Prevention Course in HAI Knowledge and Control

SHEA's Prevention Course in Healthcare-Associated Infection Knowledge and Control (Prevention CHKC) is designed to train frontline health care personnel, defined as those responsible for direct patient care, in best practices to prevent and control health care associated infections and pathogens that can spread in the health care setting.

Available through SHEA's Learning CE site, this training educates frontline personnel to successfully execute best practices in topics that include:

- Prevention of CLABSI, CAUTI, SSI and VAP/VAE
- Prevention of *C. difficile* and MRSA
- Prevention strategies, including methods for appropriate performance and timing of hand hygiene in the health care setting as well as disinfection and environmental control

IDWeek Affiliated Events Schedule

Visit the Affiliated Events and Affiliated Sessions – CME events of the **ID**Week virtual platform to view additional programming.

Saturday, October 2

11:30 A.M. ET

Harnessing the Power of Microbial Cell-Free DNA in Plasma: Diagnosing Critical Infections With the Karius Test at a Tertiary Care Center
Learning Lounge supported by Karius

Long-Acting Antiretrovirals for Treatment-Experienced People with HIV
Learning Lounge supported by Thearatechnologies

The Power of the Microbiome — Can It Be Unlocked to Break the Cycle of Recurrent *Clostridioides difficile* Infection?
Learning Lounge supported by Ferring

Turning Large-Scale Immune Repertoire Data Into Actionable Insights: Lessons From COVID-19, Lyme and Other Infectious Diseases
Learning Lounge supported by Adaptive Biotechnologies

12:30 P.M. ET

Continual Improvement of Vancomycin AUC Dosing: Why (and How) to Identify the Most Predictive Model for Your Organization
Learning Lounge supported by InsightRX

It Doesn't End at Discharge: Sequelae After Surviving Meningococcal Disease — Experiences from a Survivor and the People Who Care for Him
Learning Lounge supported by Sanofi Pasteur

Post-Transplant Cytomegalovirus Infection
Learning Lounge supported by Takeda

ZEMDRI® (Plazomicin) Injection: A 2021 Update
Learning Lounge supported by Cipla

Get Ahead of Respiratory Season

Flu season comes with a lot of variables, and with the evolving threat of COVID-19, labs need flexible respiratory options now more than ever.

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Create custom panels on a case-by-case basis and pay only for selected targets

Viruses
Adenovirus
Human Metapneumovirus
Influenza A
Influenza A (subtype H1)
Influenza A (subtype H3)
Influenza B
Parainfluenza 1
Parainfluenza 2
Parainfluenza 3
Parainfluenza 4
Rhinovirus
RSV A
RSV B

Pay only for what you need

Bacteria
Bordetella pertussis
Bordetella parapertussis/ B. bronchiseptica
Bordetella holmesii

† In development for VERIGENE® II

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Support Tomorrow's ID Leaders with the IDSA Foundation

Infectious diseases claim the lives of 17 million people around the world every year, and that number has risen in the wake of COVID-19. In 2020, the average U.S. life expectancy dropped by a year and a half compared to 2019 — the largest decline since World War II. This decrease was even greater among historically marginalized populations.

Recent events have brought into sharp focus the importance of having trained ID practitioners to provide life-saving care, conduct critical research and educate the public about new and emerging ID threats. Yet the number of new ID physicians has steeply declined over the past decade, even as the world's population grows and the global trend of ID outbreaks is on the rise.

According to the latest data:

- There was only one active ID physician per every 34,214 persons in the U.S. in 2019.
- Nearly 80% of counties have no ID specialists.
- More than 41% of active ID specialists in 2019 were over the age of 55.
- 38% of ID programs failed to fill training slots from 2019 to 2020, and 19% weren't able to fill any slots.
- There was an average of 0.8 applicants for every open position in ID programs nationwide in 2019 to 2020.

Without a robust, growing field of gifted ID physicians, we cannot maintain a health care system that will support us through the current — and next — pandemic.

The IDSA Foundation is widening the path to impactful ID careers by investing in the recruitment, mentorship and career development of tomorrow's ID leaders. Our goal is to ensure the most brilliant minds in medicine are recruited to the ID profession, are mentored and nurtured in their careers and have the funding to conduct groundbreaking research that could lead to the development of new drugs and vaccines.

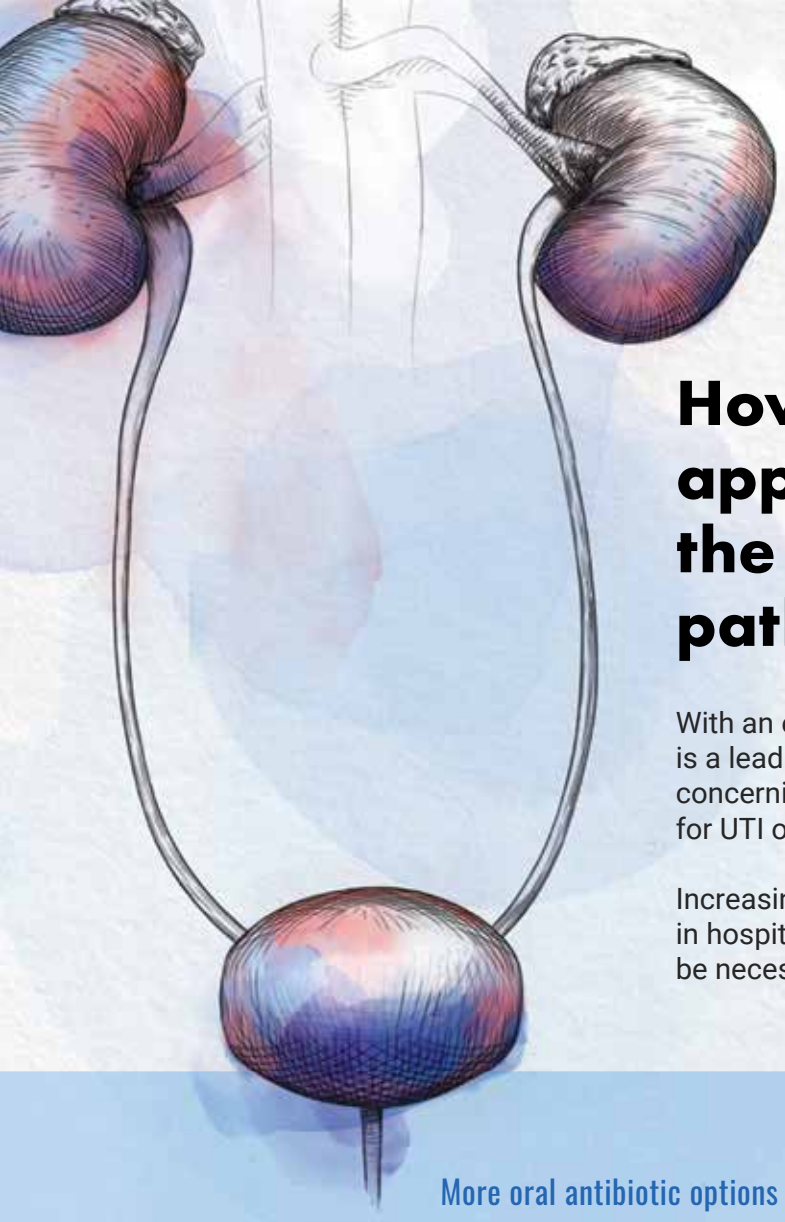
Through programs like our IDWeek Mentorship Program and ID Student Interest Groups Grant Program, we've invested more than $1 million in ID research and development, funded more than 600 research opportunities for emerging practitioners and fostered more than 1,050 young ID doctors through professional development and mentorship opportunities. And we're just getting started.

Help us build the capacity to save lives on a grand scale — and to preserve our mental, emotional and economic security in the process — now and for future generations by visiting IDSAFoundation.org.

Ready to make a difference? Make a gift in celebration of the power of science today.

Subscribe and Listen to IDWeek Partner Society Podcasts

- IDSA hosts regular podcasts dissecting all aspects of infectious diseases practice and careers, from timely discussions on the latest COVID-19 developments to building and sustaining the ID workforce.
- Recent SHEA podcasts include a multipart series on "Stewardship: Practical Approaches and Applications" as well as a look at managing misinformation in the age of social media.
- SIDP's Breakpoints podcast discusses current literature, shares information from ID meetings and advocates for optimal patient care and antimicrobial stewardship.
- The PIDS Podcast is an information hub featuring discussions with experts on clinical guidelines, treatment recommendations, diagnostics and more.



SPERO THERAPEUTICS

How can the cUTI treatment approach evolve to meet the challenges of rising pathogen resistance?[1]

With an estimated 3 million cases each year in the US, cUTI is a leading cause of infection-related hospitalization, with a concerning 52% increase in the incidence of hospital admission for UTI over the course of a decade (1998-2011).[2,3,4]

Increasing rates of resistance among uropathogens and the rise in hospitalization for UTI suggest that alternative oral options may be necessary for certain patients.[4]

More oral antibiotic options could potentially help to address:

- Avoidable hospitalization[5]
- IV-related risks[6]
- Healthcare utilization costs[2]

Learn more about cUTI treatment challenges at **www.cUTIevolution.com**

Spero Therapeutics is an emerging leader focused on evolving cUTI management through the identification, development, and commercialization of novel treatments for gram-negative pathogens to address the most urgent unmet needs of patients.

References: 1. Critchley I, Cotroneo N, Pucci M, Mendes R. The burden of antimicrobial resistance among urinary tract isolates of *Escherichia coli* in the United States in 2017. *PLoS ONE.* 2019:14(12). doi.org/10.1371/journal.pone.0220265. **2.** Carreno J, Tam I, Meyers J, Esterberg E, Candrilli S, Lodise T Jr. Longitudinal, Nationwide, Cohort Study to Assess Incidence, Outcomes, and Costs Associated With Complicated Urinary Tract Infection. *Open Forum Infect Dis.* 2019. doi:10.1093/ofid/ofz446. **3.** Zilberberg M, Nathanson B, Sulham K, Shorr A. Multiple antimicrobial resistance and outcomes among hospitalized patients with complicated urinary tract infections in the US, 2013-2018: a retrospective cohort study. *BMC Infect Dis.* 2021:21. doi.org/10.1186/s12879-021-05842-0. **4.** Simmering J, Tang F, Cavanaugh J, Polgreen L, Polgreen P. The Increase in Hospitalizations for Urinary Tract Infections and the Associated Costs in the United States, 1998–2011. *Open Forum Infec Dis.* 2017. doi:10.1093/ofid/ofw281. **5.** Lodise T, Chopra T, Nathanson B, Sulham K. Hospital Admission Patterns of Adult Patients with Complicated Urinary Tract Infections Who Present to the Hospital by Disease Acuity and Comorbid Conditions: How Many Admissions are Potentially Avoidable? *Am J Infect Control.* 2021:S0196-6553(21)00382-5. doi.org/10.1016/j.ajic.2021.05.013. **6.** Thurber K, Arnold J, Narayanan P, Dierkhising R, Sampathkumar P. Comparison of intravenous and oral definitive antibiotic regimens in hospitalised patients with Gram-negative bacteraemia from a urinary tract infection. *J Globl Antimicrob Resist.* 2019:18. doi.org/10.1016/j.jgar.2019.03.013.

Don't Miss the Virtual Exhibit Hall

Close to 80 exhibitors have partnered with **ID**Week to connect with attendees and share their resources, products and services in our virtual exhibit halls.

Virtual booth personnel will be available to answer questions live during "blitz hours" on Saturday, Oct. 2, 11:15 a.m. – 1:15 p.m. ET.

Earn **double the points** toward the IDWeek prizes by visiting exhibits during these hours. Complete your visit by clicking the Complete button at the bottom of the virtual booth to earn points.

Visit exhibits any time to leave a message and review featured videos, documents and links. Exhibits will remain available through Dec. 31 for all attendees and through March 31, 2022 for attendees purchasing extended conference access.

IDWeek Celebrates and Thanks Our 77 Exhibiting Partners!

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Astellas Pharma US
AstraZeneca
Bio-K Plus USA
BioFire Diagnostics, LLC
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Cambridge University Press
Cipla Therapeutics, a division of Cipla USA, Inc.
Clear Labs
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Ferring Pharmaceuticals Inc.
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Gilead Sciences, Inc.
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COVID-19: Accurate Detection and Genomic Profiling of Pathogens with Precision Metagenomics Can Improve Clinical Outcomes

The COVID-19 pandemic has highlighted the need for accurate and comprehensive pathogen detection with genomic characterization. Variants may differ in pathogenicity, response to treatment, and vaccine effectiveness. Co-infections or secondary infections are often difficult to diagnose with standard-of-care (SOC) tests but are known to affect disease severity and can be fatal.[1)] In addition, increasing prevalence of antimicrobial resistance (AMR) highlights the need for more effective detection and surveillance tools.

Precision Metagenomics identifies pathogens with excellent analytical sensitivity and concomitantly profiles AMR markers, providing results in all within a 24-hour turnaround time. Fastidious and slow-growing pathogens are all included in the detection capabilities, providing an alternative to SOC tests.

The Potential of Precision Metagenomics

Examined in a research setting, the following case highlights the potential impact of Precision Metagenomics: A 81-year-old male presented with weakness of unknown etiology (initially SARS-CoV-2 PCR-negative). He worsened with evidence of nosocomial infection with SARS-CoV-2. An endotracheal aspirate (ETA) collected upon transfer to the medical ICU revealed "normal respiratory flora."

Retrospective analysis of the same ETA specimen with Precision Metagenomics resulted in the detection of SARS-CoV-2, *Staphylococcus aureus* (mecA not detected), and *Enterococcus faecalis* (vanA detected). The patient subsequently developed methicillin-susceptible *S. aureus* (MSSA) and vancomycin-resistant enterococcus (VRE) bacteremia. A subsequent SOC test of an ETA revealed only the presence of yeast. When analyzed with Precision Metagenomics, *Candida auris* was identified, which can be multi-drug resistant, cause candidemia and has high mortality rates. Unfortunately, this patient successively developed candidemia with *Candida auris* and expired. www.idbydna.com/idweek2021

References: 1) Musuuza JS et al. Prevalence and outcomes of co-infection and superinfection with SARS-CoV-2 and other pathogens: a systemic review and meta-analysis. PLoS ONE. 2021: 16(4): 1-23.

Groundbreaking Immunotechnology, One Connection at a Time

Respiratory viral infections (RVIs) are among the top five most common types of infection in patients with immunodeficiency (primary [PI] and secondary) and pose a substantial clinical burden.[1] The majority of RVIs precede bacterial infections or present as co-infections.[2] The risk is related to the severity of the immunodeficiency,[3] where 89% of HSCT recipients experience ≥1 RVI3 and 61% of lung transplant patients experience ≥1 RVI.[4]

PI patients are more vulnerable to infections and more likely to suffer complications from these infections.[1] As patients with PI lack a properly functioning immune system, they typically receive monthly, outpatient infusions of IVIG therapy.[1] Without exogenous antibody immune support, these patients would be susceptible to a wide variety of infectious diseases.

ADMA Biologics is an end-to-end commercial biopharmaceutical company committed to manufacturing, marketing and developing specialty plasma-derived products for the prevention and treatment of infectious diseases in the immune compromised and other patients at risk for infection. Our devotion to these underserved populations fuels us, and our hands-on approach to production and development sets us apart.

ADMA currently manufactures and markets three United States Food and Drug Administration (FDA) approved plasma-derived biologics for the treatment of immune deficiencies and the prevention of certain infectious diseases:

- ASCENIV™ (immune globulin intravenous, human – slra 10% liquid) for the treatment of primary humoral immunodeficiency (PI);
- BIVIGAM® (immune globulin intravenous, human) for the treatment of PI; and
- NABI-HB® (hepatitis B immune globulin, human) to provide enhanced immunity against the hepatitis B virus.

Visit our virtual exhibit space to learn more about managing patients at risk for infection and to chat with us live!

Learn more at www.admabiologics.com.

References: 1. Jesenak M, et al. Front Pediatr. 2014;25(2):77. 2. Wiegers HMG, et al. BMC Infect Dis. 2019;19(1):938. 3. Piñana JL, et al. Biol Blood Marrow Transplant. 2018;24(3):563-570. 4. Bridevaux PO, et al. Thorax. 2014;69(1):32-38.

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What Is CIED Infection?

Cardiac implantable electronic device (CIED) infection is when an infection, either in the pocket or in the blood stream, has attached to the device or leads. A pocket infection begins either in the pocket (location on the chest where the generator is implanted) or in the blood stream and then attaches to the leads and can occur when the device is implanted or any time thereafter. Local symptoms of pocket infections are obvious indicators of a problem and may include redness of the skin, pain or tenderness, swelling or warmth, drainage, skin ulceration, and generator or lead erosion.[1] A systemic infection may first develop elsewhere in the body—from a cut or wound that becomes infected and enters the bloodstream, eventually working its way to infect the leads. Systemic infections may be difficult to diagnose as 41% of device infections are not visible from the pocket and have a source other than the device.[2] With over 31,000 patients affected in the US each year[3], early identification of CIED infection is critical to address this healthcare need.

Visit philips.com/deviceinfection to learn more about different types of CIED infection.

1. Margey, R. et al. Contemporary management of and outcomes from cardiac device related infections. Europace (2010) 12 (1): 64-70 first published online November 11, 2009 doi:10.1093/ europace/ eup362.

2. Voigt, Andrew, et al. Continued Rise in Rates of Cardiovascular Implantable Electronic Device Infections in the United States: Temporal Trends and Causative Insights. PACE Vol. 33, No. 4, 2010: 414-9.

3. Philips. (2020b). CIED Infection Treatment Inadequate Adherence to Guidelines. Data on File.

About Dynavax

Dynavax is a commercial stage biopharmaceutical company developing and commercializing novel vaccines. The Company's first commercial product, HEPLISAV-B® [Hepatitis B Vaccine (Recombinant), Adjuvanted], is approved in the U.S. and the European Union. Dynavax is also advancing CpG 1018 adjuvant as a premier vaccine adjuvant through research collaborations and partnerships. Current collaborations are focused on adjuvanted vaccines for COVID-19, pertussis and universal influenza.

For more information, visit www.dynavax.com and follow the company on LinkedIn. For more information about HEPLISAV-B, visit heplisavb.com.

Improve Efficiency and Patient Care with the ePlex RP2 Panel

Hospital laboratories across the country continue to face unprecedented challenges as the COVID-19 pandemic overlaps with another influenza season. Labs are preparing for the worst as the 2021/2022 respiratory season begins, with many questions remaining about what we can expect over the next 6 months. The ePlex RP2 Panel is an important part of the respiratory testing algorithm and can help streamline the testing process for more efficient laboratory operation and improved patient care.

The ePlex RP2 Panel is easy to use and requires less than 1 minute of hands-on time to process a patient sample. The test can be run on all shifts, providing results to clinicians when they need them.

Results from the ePlex RP2 Panel are available in less than 2 hours and with the configurable automatic results release functionality, results can be provided to the clinician via LIS as soon as they are available with no delay due to manual entry or review. During the pandemic, labs were busier than ever and the ability to automate this portion of the testing process streamlines the overall lab workflow while ensuring that clinicians can quickly make decisions about patient care.

Getting results quickly is important, but knowing what to do with those results is equally critical. With quickly changing COVID management protocols, and limited bed space to handle surges in admissions, the ePlex System's Templated Comments feature can help. Templated Comments can be pre-defined and added to each report based on test results. Recommendations are customizable and based on input from a cross functional team (infectious disease clinicians, pharmacists, infection control specialists, etc.). Recommendations can include guidance on implementation of isolation or infection control measures, initiation of antimicrobials, or instructions to immediately call the clinician with the results.

For more information on how the ePlex RP2 Panel can help you prepare for the respiratory season, visit GenMarkdx.com.

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It's Time to Address Treatment Challenges in cUTI and Evolve the Treatment Approach

The growing challenges of a limited number of oral treatment options for complicated urinary tract infection (cUTI) and acute pyelonephritis (AP) due to antibiotic resistance place undue burden on both patients and the healthcare system, in terms of recurrent infections, hospitalizations, and cost.[1,2]

Despite the reduction in the severity of UTI patients, there has been an increase in hospitalizations.[2] A study of hospital admissions across 250 US hospitals (2013-2018) found that 1 in 5 patients admitted with a cUTI were low acuity, suggesting potentially avoidable hospitalization.[3] The increasing rates of resistance amongst uropathogens and rise in hospitalization for UTI suggest that alternative oral options may be necessary for certain patients to enhance the ability to treat effectively and safely in the community.[2]

Are current oral options for cUTI keeping up with rising resistance? With roughly 1 in 8 cUTI patients infected with a pathogen resistant to at least 3 orally available antibiotic classes, including fluoroquinolones, trimethoprim/sulfamethoxazole, and third-generation cephalosporins, treating cUTI is increasingly challenging.[4]

Antibiotic resistance is a leading concern when it comes to managing cUTI in an outpatient setting.[5] Spero Therapeutics is committed to evolving cUTI management through the identification, development, and commercialization of novel treatments for gram-negative pathogens to address the most urgent unmet needs of patients while aligning with key antibiotic stewardship principles. Find out more at sperotherapeutics.com.

Explore how the current cUTI treatment gap burdens certain patients and clinicians at cUTIevolution.com.

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1. Carreno J, et al. Open Forum Infect Dis. 2019. 2. Simmering J, et al. Open Forum Infec Dis. 2017. 3. Lodise T, et al. Am J Infect Control. 2021;S0196-6553(21)00382-5. 4. Zilberberg M, et al. BMC Infect Dis. 2021;21. 5. Critchley I, et al. PLoS ONE. 2019;14(12).

BioFire Pneumonia Panel

Join Tufik R. Assad (MD, MSCI) for an **ID**Week Presentation Theater titled "The Clinical Utility of the BioFire® FilmArray® Pneumonia (PN) Panel and Procalcitonin to Aid in Pneumonia Diagnosis." Dr. Assad will discuss how the BioFire Pneumonia Panel has aided in the rapid identification of a causative pathogen in several cases of pneumonia.

The presentation took place on Thursday, September 23, and is now available on-demand.

In about an hour, the BioFire Pneumonia Panel can detect 33 clinically relevant targets, including the most common causes of pneumonia and associated antimicrobial resistance genes. The BioFire Pneumonia Panel can test sputum samples (including endotracheal aspirate) and bronchoalveolar lavage samples (including mini-BAL). The panel provides semi-quantitative results for 15 bacteria, which may help determine whether an organism is a colonizer or possibly something more serious. The BioFire Pneumonia Panel has the potential to significantly improve time to result and allow treating physicians to put patients on the right therapy quickly.

BioFire Diagnostics offers syndromic infectious disease diagnostic solutions with several assay-specific reagent panels. Each panel provides the ability to detect and identify a broad grouping of probable pathogens in a single, rapid PCR-based test. The syndromic approach provides fast and accurate diagnostic results, maximizing the chances of finding out what's making a patient sick and helping physicians quickly provide appropriate treatment. BioFire currently offers diagnostic panels that tackle five infectious disease syndromes: respiratory infections, gastrointestinal infections, blood stream infections, meningitis/encephalitis, and pneumonia.

To learn more about BioFire's rapid diagnostic solutions for pneumonia and other clinical syndromes, visit biofiredx.com.

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