

House Budget Committee Roundtable on Antimicrobial Resistance

Trish Perl, MD, FIDSA on behalf of the Infectious Diseases Society of America

Opening Statement

Thank you for the opportunity to participate in today's roundtable discussion. My name is Dr. Trish Perl, Professor of Infectious Diseases and Public Health, former Chief of Infectious Diseases and now Associate Dean of Faculty Affairs in the O'Donnell School of Public Health at University of Texas Southwestern Medical Center and today I am representing the Infectious Diseases Society of America. I am a practicing physician, teacher, researcher and administrator.

Antimicrobial resistance, or AMR, is a top threat to human health, causing significant morbidity and mortality and a key driver of increased healthcare costs to federal programs like Medicare. Increasingly complex medical care brings increasing risks of infections, making antibiotics and antifungals essential to our ability to provide care safely. The more we use antibiotics and antifungals, the bacteria and fungi grow increasingly resistant to our treatments, and the treatments lose their effectiveness.

The post-antibiotic era is already here for many patients. In the U.S., antimicrobial-resistant infections contributed to nearly 173,000 deaths in 2019. This worsened during the COVID-19 pandemic, as hospital-associated AMR infections rose by more than 30% and even now remain 12% above pre-pandemic levels.

Consider the following:

- About half of all cancer deaths are estimated to involve an infection, as both cancer and cancer treatments weaken the immune system. Often, we can cure a patient's cancer, but we cannot cure their secondary infection.
- Sepsis, the body's overwhelming response to infection, is the second leading cause of maternal mortality in the US.
- Prosthetic joints, pacemakers, heart valves and other implantable devices can all easily become infected, leading to even more complex, costly care and even amputations.
- Certain biologics which are growing in use to treat a wide range of conditions modulate the immune system, also increasing the risk of infection.

As we lose antibiotics and antifungals to growing resistance, and we fail to replace them through innovation, we are turning back the clock on modern medicine and sometimes practicing as they did in the pre-antibiotic era. Many of our current standards of care in medicine hinge on the availability of safe and effective antimicrobials, and will require reevaluation as we lose antibiotic and antifungals because of increased risks to patients.

AMR is contributing to skyrocketing health care costs. It adds \$20 billion in excess direct healthcare costs. Just six of the worst resistant pathogens cost the US health care system more than \$4 billion annually, with about half of those costs born by Medicare. Why? Sometimes, it is difficult to test for which antimicrobials work which delays appropriate treatment and increasingly we cannot easily treat an infection—in both situations the patient commonly stays in the hospital for much longer and receives a greater array of treatments and procedures to try

to get their infection under control. Put another way, antibiotic resistance adds nearly \$1,400 to the cost of treating one patient with a bacterial infection.

In addition, AMR is significantly limiting patients' ability to benefit from federal investments in many other areas of medicine. For example:

- In 2020 the US spent over \$200 billion on cancer care, and we are projected to spend more than \$245 billion in 2030. But the many patients with cancer who die from infections are clearly not fully benefiting from the enormous federal investments in cancer therapeutics and care.
- There are over 42,000 organ transplants in the US each year, with each one costing hundreds of thousands of dollars. For example, on average, the US spends \$415,000 per kidney transplant and \$862,000 per single lung transplant. These patients must be on immunosuppressing drugs to prevent organ rejection, and thus are extremely vulnerable to infections. We use and need antimicrobials to protect these patients' lives as well as our investment in their care.
- I understand this Committee recently held a roundtable on cell and gene therapies and their high upfront costs yet these therapies tremendously improve patient outcomes. Many of the patients who can benefit from these therapies have underlying conditions, such as cystic fibrosis, that put them at high risk of infection and are almost always colonized with a resistant organism. Some of these therapies themselves also carry an infection risk so that colonization turns to infection. We need antibiotics to support these patients' care. Without effective antibiotics, many of our investments in cell and gene therapy will be lost.

There are solutions within our grasp. I want to thank Representatives Ferguson and Peters for their bipartisan PASTEUR Act, which would revitalize our antibiotic and antifungal pipeline and enable sustainable innovation. Novel antibiotics and antifungals and novel approaches to AMR would allow us to more safely provide medical care and discharge patients from the hospital more quickly because we would be able to treat their infections. An investment in novel antibiotics and antifungals would save lives and save money.

PASTEUR would also provide resources to rural and critical access hospitals and long-term care facilities to support antimicrobial stewardship programs—these are programs that help ensure patients receive optimal antimicrobial therapy. These programs improve patient outcomes and save money by getting patients the right drug for the right bug and reducing wasteful spending associated with unnecessary antimicrobial use. The data is overwhelming.

I also want to thank Representative Burgess for his bill to help ensure that Congress can better account for cost savings associated with prevention. IDSA is proud to support this bill.

The cost of inaction on AMR far outweighs the cost of action. PASTEUR will prevent many of the costs associated with hard-to-treat resistant infections. On behalf of the medical community and our patients, I urge passage of PASTEUR this year. Thank you for your attention to this urgent issue.