

3 ways to slow spread of deadly antibiotic-resistant infections

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More than 2.8 million antibiotic-resistant infections occur annually in the U.S. and they kill more than 35,000 people each year, says a report from the Centers for Disease Control and Prevention (CDC). In addition, nearly 223,900 people in the United States required hospital care for *C. difficile* and at least 12,800 people die as a result.

The CDC's "Antibiotic Resistance Threats in the United States, 2019" report includes the updated national death and infection estimates that underscore the continued threat of antibiotic resistance. In 2013, the CDC published the first of these reports, which found that each year at least 2 million people were infected and at least 23,000 died as a result.

However, newly available data allowed the CDC to look back at the 2013 numbers. The CDC found that the deaths from antibiotic-resistant infections was nearly two times higher than what was originally reported in 2013. Overall, the 2019 report shows a decrease in deaths from antibiotic-resistant infections by 18% overall and by nearly 30% in hospitals.

This year's report lists 21 pathogens in four categories based on level of concern to human health—five fell into the urgent threat category: carbapenem-resistant *Acinetobacter*, *Candida auris*, *Clostridioides difficile*, carbapenem-resistant *Enterobacteriaceae* and drug-resistant *Neisseria gonorrhoeae*.

"While the CDC's report shows that progress has been made over the past few years to stem antibiotic resistant infections, it also shines a light on the emerging sources of antibiotic resistant infections that will continue to threaten public health if not controlled," said AMA President Patrice A. Harris, MD, MA. "We must all remain vigilant in combatting the spread of antibiotic resistant bacteria in both the health care setting and in our communities.

"It is extremely important that we take steps to prevent infections in the first place, this includes following infection control and prevention recommendations and receiving recommended

vaccinations. It is also critical to take steps to ensure the appropriate use of antibiotics across all health care settings,” Dr. Harris added. “To that end, the AMA is currently working to identify gaps and barriers to implementing antibiotic stewardship in outpatient health care facilities.”

The following actions can help protect your patients and communities from antibiotic-resistant infections.

Prevent infections, slow spread of germs

“While the development of new drugs is important to treat resistant threats, public health prevention programs targeting resistant germs can and have worked to slow spread and save lives. But more needs to be done,” says the report.

Infection-prevention activities have been proven to be effective in slowing the spread of resistant germs. These include vaccination, implementing hand hygiene and responding rapidly to unusual genes and germs when they first appear. Physicians should follow infection prevention and control recommendations, including screening at-risk patients when identified.

The report also recommends physicians and health professionals:

- Ask patients if they recently received care in another facility or traveled to another country.
- Ensure your patients receive recommended vaccines.
- Alert receiving facilities when transferring patients who are colonized or infected with antibiotic-resistant germs.
- Educate patients on ways to prevent spread.
- Stay informed of current outbreaks.

Improve antibiotic prescribing

Antibiotics for medical care, animal health and agriculture should be used only when necessary and only for appropriate durations. Patients should always be treated with antibiotics when needed for infections and to prevent sepsis, says the report.

The CDC recommends following clinical and treatment guidelines. Physicians and other health professionals can also support the CDC’s Core Elements of Antibiotic Stewardship to ensure appropriate antibiotic use and:

- Consider fungal infections for patients with respiratory infections that do not respond to

antibiotics.

- | Watch for signs and symptoms of sepsis. If you suspect sepsis, start antibiotics as soon as possible and reassess antibiotic therapy.
- | Perform appropriate diagnostic tests to guide antibiotic therapy, including correct drug, dose, and duration.

Be alert and take action

The CDC urges physicians and other health professionals to be aware of infections and resistance patterns in their facility and community. And if antibiotic-resistant germs are identified in your patients, ensure the lab notifies you as soon as possible.

Patients and families should also be informed immediately if they have an antibiotic resistant infection. Sexual partners should also be notified when appropriate, such as with gonorrhea. It is also important that physicians know when to report cases and submit resistant isolates to the health department. This can help identify unusual resistance or treatment failures.

The AMA supports antimicrobial stewardship programs as an effective way to ensure appropriate antibiotic use to reduce the burden of antimicrobial resistance and to improve patient outcomes, as well as incentives to create a sustainable antibiotic research and development enterprise.

The AMA Ed Hub™, an online platform that consolidates all the high-quality CME, maintenance of certification, and educational content you need—in one place—with activities relevant to you, contains a collection of educational resources for physicians focused on antibiotic use, overuse, resistance and stewardship.