Covid-19: Antimicrobial resistance rose dangerously in US during pandemic, CDC says

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Resistance to antibiotics and to antifungals rose dramatically during the covid pandemic, reversing previous gains, the US Centers for Disease Control and Prevention has warned.

A CDC report issued on 12 July noted that during the first year of the pandemic some 29 400 people died from antimicrobial resistant infections, nearly 40% of which were acquired in hospital.1 2

The CDC’s director, Rochelle Walensky, called for immediate action and funding to reverse the setback. “We must prepare our public health systems to fight multiple threats, simultaneously,” she said.

The CDC’s report said that antimicrobial resistance in the US rose overall by 15% from 2019 to the time just after the 2020 peaks of the pandemic.3 It found increases of 78% in carbapenem resistant \textit{Acinetobacter} infections, 32% in multidrug resistant \textit{Pseudomonas aeruginosa} infections, 14% in vancomycin resistant \textit{Enterococcus} (VRE) infections, and 13% in methicillin resistant \textit{Staphylococcus aureus} (MRSA) infections.

Resistance to antifungals also rose in 2020. Resistance to \textit{Candida auris} rose 60% overall and resistance to \textit{Candida} species (excluding \textit{Candida auris}) rose 26% in hospital infections.

Walensky said the CDC had been sounding the alarm over antimicrobial resistance in the US since 2013, noting the threat it posed to the healthcare system, food supply, environment, and community. Before the pandemic more than three million American acquired an antimicrobial resistant infection or a \textit{Clostridioides difficile} infection (often associated with antimicrobial use) each year and nearly 50 000 died. Antimicrobial resistance is a global threat, especially in low resource countries, she said.

Prevention is the most basic and successful tool, Walensky said. The CDC’s 2019 report on antibiotic resistance showed that between 2012 and 2017 deaths from antimicrobial resistance decreased by 18% overall and by nearly 30% in hospitals, “largely due to significant investments in US prevention efforts like improving infection prevention and control as well as antimicrobial use.”

In the current report Walensky said, “The pandemic pushed healthcare facilities, health departments, and communities near their breaking points in 2020, and we saw a significant increase in antimicrobial use, difficulty in following infection prevention and control guidance, and a resulting increase in healthcare associated, antimicrobial resistance infections in US hospitals.” Almost 80% of patients who were admitted to hospital with covid-19 received an antibiotic during their hospital stay, the report said.

The pandemic’s unprecedented challenges “could have contributed to reduced comprehensive prevention practices” needed to stop the spread of antimicrobial resistant organisms, Walensky added, noting a lack of data in 2020 about many pathogens that spread in the community, such as drug resistant gonorrhoea.

The pandemic made it clear that “prevention is preparedness,” Walensky said. “We must prepare our public health systems to fight multiple threats simultaneously,” she added.

She called for investment in preventive public health: accurate laboratory detection, rapid response and containment, effective infection prevention and control, and expansion of innovative strategies to combat antimicrobial resistance. “These include alternatives to antibiotics and antifungals, new vaccines to combat infections that can develop antimicrobial resistance, and novel decolonising agents to stop the spread of antimicrobial resistant germs by people who may not know they are carriers,” she said.


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