

EDITORIAL

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Defending Our Future: A Clarion Call for Action Against Antimicrobial Resistance

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Dear Editor

Over the past few decades, there has been a notable rise in antimicrobial resistance (AMR), presenting a significant challenge to worldwide public health.¹ The abuse and over-exploitation of antimicrobial agents have expedited this crisis, jeopardizing the effectiveness of treatments for common infections and undermining progress in modern-day medicine.² To prevent the imminent disaster, combined efforts must be made at local, national, and international levels to fight against AMR through comprehensive prevention strategies.

Most importantly, raising awareness among healthcare professionals, policymakers, and the general public is of paramount importance. Many are incognizant of the direful consequences of AMR and the role they play in aggravating it. Education campaigns highlighting the value of responsible antimicrobial use, strict infection prevention and control practices, and the worth of immunization can empower individuals to make informed decisions and follow appropriate measures conducive to preserve antimicrobial efficacy.

Moreover, healthcare systems globally must prioritize surveillance and monitoring of antimicrobial use and resistance patterns. Robust data collection mechanisms can render insights into emerging trends, identify hot spots of resistance, and modify evidence-based interventions. Health care facilities must compulsorily implement antimicrobial stewardship programs so that clinicians can optimize antimicrobial prescribing practices, lessen unnecessary use, and palliate the process and spread of resistant pathogens.³

In agricultural cultivation, where antimicrobials are extensively misused in animal husbandry and crop production, strict regulatory measures are imperative to curtail misuse. Rigorous enforcement of regulations governing antimicrobial use in food-producing animals, alongside encouraging alternative farming activities, such as organic agriculture and coordinated pest control, can aid in decreasing the preponderance of resistant organisms in the food chain and palliate the risk of transmission to humans.⁴

Furthermore, nurturing research and innovation is critical in developing new antimicrobial agents and cost-effective diagnostics to battle AMR effectively. Investment in novel alternative strategies and treatment options such as phage therapy, monoclonal antibodies, and CRISPR-based antimicrobials, holds the prospect of addressing resistant infections and refilling the tapering armory of effective antimicrobial drugs. Equally crucial is motivating pharmaceutical organizations to spend on antimicrobial research and development, as the present market dynamics disincentivize investing in

antimicrobials due to low profitability and regulatory hurdles.⁵

Collaboration and linkages across sectors and borders are vital in tackling AMR comprehensively. International health organizations, Governments, academia, industry, and civil society should work together to consort policies, share best practices, and marshal resources to fight this global health menace efficaciously. Drive such as the Global Action Plan on Antimicrobial Resistance endorsed by the World Health Organization renders a model for integrated action and mutual responsibility in addressing AMR at the international level.²

In conclusion, preventing antimicrobial resistance warrants a multifaceted plan and approach embracing awareness-raising, surveillance, prevention, regulation, research, and collaboration. The stakes are higher, but with combined attempts and firm commitment, we can safeguard the efficacy of antimicrobials for present and future generations.

It is time to act: let us join forces to preserve one of the most epochal achievements of modern-day medicine and guarantee a healthier, more resilient world for all.

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