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February 5, 2024

Global Disaster Trends: Antimicrobial Resistance

Antimicrobial resistance can be defined as the ability of microorganisms to evolve and develop resistance to the antimicrobials used to treat infections in humans, animals, and crops. The overuse and misuse of antimicrobials in both healthcare and agriculture sectors have rapidly accelerated this phenomenon. The discovery of antibiotics in the twentieth century is a major accomplishment as they have saved countless lives by combating infectious diseases. However, common infections are now becoming increasingly difficult, or in some cases impossible, to treat. This has resulted in prolonged illnesses, increased healthcare costs, and higher mortality rates.¹ According to the World Health Organization (WHO), antimicrobial resistance is one of the top global health threats. The implications of antimicrobial resistance are severe as it jeopardizes human and livestock health, the environment, and food security. In 2019, antimicrobial resistant bacteria were responsible for 1.27 million deaths, and without urgent intervention, projections indicate this number could rise to 10 million annual deaths by 2050. Moreover, it is anticipated to incur over \$100 trillion in global economic losses, a staggering amount that eclipses the economic impact of even the COVID-19 pandemic.²

Preventing the alarming increase of antimicrobial resistance requires a comprehensive approach. The World Health Assembly has created an action plan to address this issue, which includes the following initiatives. Firstly, increasing public knowledge on the issue is important to empower individuals to make informed decisions about the responsible use of antibiotics. Secondly, improving research and surveillance on drug-resistant bacteria to develop effective infection control measures. Thirdly, implementing hygiene and infection prevention protocols is particularly important in healthcare settings to prevent hospital-acquired infections. Furthermore, the prescription of antibiotics for humans and livestock must be limited. Lastly, investments in novel medications, diagnostic tools, and vaccines must be encouraged. These prevention measures can be easily implemented with multi-sector collaboration. Antimicrobial resistance is a global threat that requires collaboration among governments and international organizations for effective mitigation.¹

References

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