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ANTIMICROBIAL RESISTANCE AND ITS IMPACT ON ONE HEALTH

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ABSTRACT

Antimicrobial resistance (AMR) represents a critical challenge to global health, significantly impacting the One Health framework, which integrates human, animal, and environmental health. This abstract focuses on elucidating the multifaceted implications of AMR across these domains, highlighting its relevance in public health discourse. The primary objective is to synthesize current literature on AMR trends, mechanisms, and control strategies, particularly in developing regions where the burden is most acute. Methodologically, the abstract adopts a systematic review approach, analyzing data from various studies to identify key themes and gaps in understanding AMR. Key findings reveal alarming trends in resistance among pathogens, particularly in low-resource settings, where the overuse of antimicrobials in agriculture and healthcare exacerbates the problem. Furthermore, the abstract emphasizes the interconnectedness of AMR across species and environments, underscoring the need for integrated surveillance and stewardship programs. In conclusion, the abstract advocates for urgent collaborative efforts to mitigate AMR, including the development of enhanced regulatory frameworks, public awareness campaigns, and investment in research for novel therapeutics. These recommendations inform policymakers and stakeholders about the critical need for a unified response to combat AMR effectively.

Keywords: *Antimicrobial resistance, One Health, public health, surveillance, stewardship, global health.*