The Worldwide Problem of Antimicrobial Resistance to Antibiotics: A Global but also a Personal Responsibility

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Abstract

In the 80s and 90s, increasing antibiotic resistance was met by the introduction of new effective agents with broader antibacterial spectra for the treatment of severe infections. In recent years, actually no novel antimicrobial has been developed, and this has critically weakened our strength in the flight against resistant bacteria, especially Gram-negative bacilli and mostly Klebsiella pneumoniae strains which often are pan-drug resistant. Physicians nowadays are already faced with the challenge of untreatable Gram-negative infections due to antibiotic resistance. Empirical treatment with broader spectra and high antibiotic pressure both in- and outside hospital is the driving force behind resistance. Since new efficient drugs against Gram-negative bacilli will not be available for some years, it is evident that we are approaching the "End of Antibiotics' Era". The best we can do to confront infections caused by multidrug-resistant bacteria is the strict application of antibiotic stewardship, plus strict infection control in our hospitals. However, the importance of targeted education on antimicrobial chemotherapy starting at medical school and continued at a regular basis in all medical subspecialties should be imposed.