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Introduction

The emergence and spread of antibiotic resistance in bacteria has become a global public health concern. Antibiotic resistance is the ability of bacteria to survive and grow in the presence of antibiotics. This is a major cause of morbidity and mortality worldwide. Antibiotic resistance is a natural phenomenon that has been observed for centuries. However, the widespread use of antibiotics in the 20th century has led to a rapid increase in the prevalence of antibiotic resistance. This is due to the selective pressure exerted by antibiotics on bacterial populations. Antibiotic resistance is a complex phenomenon that involves a variety of genetic and biochemical mechanisms. These mechanisms include the production of enzymes that inactivate antibiotics, the modification of antibiotic targets, and the development of efflux pumps that pump antibiotics out of the cell. Antibiotic resistance is a major public health problem because it limits the effectiveness of antibiotics and increases the risk of infection. It is a global health threat that requires urgent action to prevent further spread and to develop new strategies to combat it.

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