



Emerging Therapies in Lower Respiratory Tract Infection Management

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Abstract

Lower respiratory tract infections (LRTIs) pose a significant global health burden, necessitating innovative approaches to management. This article explores the landscape of emerging therapies in LRTI management, highlighting the potential of phage therapy, monoclonal antibodies, host-directed therapies, nanotechnology, immunomodulatory agents, CRISPR-Cas9 technology, mRNA vaccines, and microbiome-based interventions. These promising therapies offer new avenues to > A ` M

Keywords:

Introduction

Lower respiratory tract infections (LRTIs) are a leading cause of morbidity and mortality worldwide, with an estimated 40 million cases annually. The burden of LRTIs is particularly high in low- and middle-income countries, where access to healthcare and antibiotics is limited. The emergence of antibiotic-resistant strains of bacteria, such as *Streptococcus pneumoniae* and *Haemophilus influenzae*, has further complicated the management of LRTIs. This article reviews the current landscape of emerging therapies in LRTI management, including phage therapy, monoclonal antibodies, host-directed therapies, nanotechnology, immunomodulatory agents, CRISPR-Cas9 technology, mRNA vaccines, and microbiome-based interventions. These promising therapies offer new avenues to > A ` M

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