



Educando para a paz

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Resumo	Klebsiella pneumoniae is a bacterium capable of colonizing mucous membranes, causing serious infections. Widespread antibiotic resistance in K. pneumoniae-either through intrinsic mechanisms or via acquisition from different species, especially in hospital environments-limits the therapeutic options against this pathogen, further aggravating the disease burden. To date, there are no vaccines available against K. pneumoniae infection. Although formulations based on capsular polysaccharides have been proposed, the high variability in capsular serotypes limits vaccine coverage. Recombinant vaccines based on surface exposed bacterial antigens are a promising alternative owing to their conservation among different serotypes and accessibility to the immune system. Many vaccine candidates have been proposed, some of which have reached clinical trials. The present review summarizes the current status of K. pneumoniae vaccine development. Different strategies including whole cell vaccines, outer membrane vesicles (OMVs), ribosome, polysaccharide, lipopolysaccharide (LPS), and protein-based formulations are discussed. The contribution of antibody and cell-mediated responses is also presented. In summary, K. pneumoniae vaccines are feasible and a promising strategy to prevent infections and to reduce the antimicrobial resistance burden worldwide.
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