Vaccines for viral and bacterial pathogens causing acute gastroenteritis: Part I: Overview, vaccines for enteric viruses and Vibrio cholera

O’Ryan, Miguel
Vidal, Roberto
Del Canto, Felipe
Salazar, Juan Carlos
Montero, David

© 2015 Taylor & Francis Group, LLC. Efforts to develop vaccines for prevention of acute diarrhea have been going on for more than 40 y with partial success. The myriad of pathogens, more than 20, that have been identified as a cause of acute diarrhea throughout the years pose a significant challenge for selecting and further developing the most relevant vaccine candidates. Based on pathogen distribution as identified in epidemiological studies performed mostly in low-resource countries, rotavirus, Cryptosporidium, Shigella, diarrheogenic E. coli and V. cholerae are predominant, and thus the main targets for vaccine development and implementation. Vaccination against norovirus is most relevant in middle/high-income countries and possibly in resource-deprived countries, pending a more precise characterization of disease impact. Only a few licensed vaccines are currently available, of which rotavirus vaccines have been the most outstanding in demonstrating a significant impact in a short t