REVIEW Open Access

Abstract

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For rotavirus vaccine, we updated the previous review and ran a search after the last search date and found five new efficacy studies [48-52] which were included and no new effectiveness studies were found. We identified new studies reporting on outcomes of rotavirus hospitalizations (n=2); diarrhea hospitalizations (n=2); severe rotavirus gastroenteritis (n=5); severe diarrhea (n=4); and rotavirus gastroenteritis of any severity (n=3). All the new data was entered with the previous estimates and reanalyzed. There was no change in the effectiveness outcomes as no new study was identified while the new estimates for the efficacy outcomes are reported in table 4. Results from two new large studies from Bangladesh and India are expected within 2013 and should provide much needed information on the effectiveness of rotavirus vaccines in South Asia. In the interval surveillance data from several countries in Latin America, notably from Mexico [54] does show a significant impact of childhood diarrhea

Table 1 Quality assessment of vaccine trials for immunization against – cholera

Effectiveness against morbidity Cholera Infection: . -outcome-specific quality					
Efficacy against morbidity Cholera Infection: High-outcome-specific quality					
Vibriocidal antibody: Low outcome-specific quality					
One or more Adverse effect: Low outcome-specific quality					

For rotavirus vaccine we estimated that currently marketed rotavirus vaccines could prevent 74% (35–90%) of rotavirus deaths and 47–57% of rotavirus hospitalizations bu0hs and 47

of oral cholera vaccines as an adjunct to the control of cholera in endemic areas and during outbreaks is unclear. The reformulation of a bivalent WC oral vaccine is an affordable and safe for use in cholera endemic areas and can be an exciting development. Our meta-analysis of children under 5 years of age shows a significant 52% reduc-

The use of vaccines seems a more applicable near-term solution due to its potential cost-effectiveness, and thus constitutes a promising alternative strategy. While the results have so far been quite favorable, current research on vaccines is still quite limited, though it is said to represent more activity in the field than we have previously seen [67]. For example, there is currently only one vaccine that is at the forefront of pediatric ETEC research: the ETEC/rCTB vaccine, similarly more emphasis has been laid on the killed oral cholera vaccine than on any other form of the vaccine, with a majority of studies coming in from Bangladesh and Vietnam, hampering the generalizability of results, with similar limitations observed in studies with shigella and rotavirus as well. It is therefore important to underscore the importance of continued research in varying contexts to help refine and define global policies for the use of vaccines for the control of diarrheal disorders.

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