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Short Communication

Short Note on Oral Cholera Vaccine

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DESCRIPTION

Vibrio cholera (Serotypes O1 and, to a lesser extent, O139) is a highly contagious bacterium that can cause cholera, a rapidly dehydrating, watery diarrheal sickness. In endemic locations with repeating seasonal patterns, cholera epidemics are common and last for a long time. Children under the age of five are at a higher risk of developing cholera in endemic areas, despite the fact that cholera affects people of all ages. As the Latin American cholera epidemic demonstrated, successful cholera control is strongly tied to advances in hygiene and availability of clean drinking water, as well as sanitary waste disposal, illness diagnosis, and case management. Dukoral (SBL Vaccine, Sweden), Shanchol, and Euvichol are three oral cholera vaccines (OCVs) now available on the global market. They had a two-dose efficacy of 58% and a three-year effectiveness of 76% (95% CI, 62%-85%), with one trial demonstrating efficacy for up to five years. Despite the fact that OCV is routinely delivered in mass campaigns in two doses 14 days apart, a single dosage gives short-term protection, with a pooled effectiveness of 69% (95% CI 35%-85%) within the first year, which has crucial implications for outbreak management. In non-emergency situations, the OCV stockpile is employed as one of the major measures for cholera control in endemic areas. Other preventative strategies, such as WASH interventions and social mobilization, should be implemented in conjunction with OCV [1]. Only prequalified vaccinations are kept in the worldwide stockpile. Due to global supply and availability constraints, OCV doses for emergency use are released from the stockpile after the International Coordinating Group (ICG), which includes UNICEF, Medicines Sans Frontiers (MSF), the International Federation of Red Cross and Red Crescent Societies (IFRC), and WHO, reviews country requests [2].

V. cholerae is divided into roughly 206 serogroups based on the makeup of its primary surface antigen (O) derived from lipopolysaccharide. Only two serogroups of Vibrio cholera, O1 and O139, are known to cause epidemic cholera.

The Oral Cholera Vaccine (OCV) has been identified as a useful technique for cholera prevention and control. However, policy directives to guide vaccine administration are currently missing in India. In light of current evidence, we conducted a scoping assessment to inform policymakers on the scopes and problems of several strategy choices for OCV delivery in India, highlighting the scope of new research. For the delivery of OCV, there is little evidence that a mass-campaign is more cost-effective and efficient than a routine Expanded Programme on Immunization (EPI) session [3]. In terms of operational feasibility, it must be determined whether the OCV delivery strategy is compatible with India's current EPI, and whether it can be incorporated into routine immunization at the measles-containing vaccine age-schedule, optionally preceded by a campaign in targeted hotspots in the 1-14 year age group. Prerequisites for the design of such an EPI Policy Include OCV safety and efficacy data from infancy, as well as hot-spot surveillance [4].

CONCLUSION

OraVacs is an enteric-coated capsule containing recombinant cholera B subunit and inactivated Whole-Cell (WC) of Vibrio cholera O1 classical biotype or El Tor biotype (rBS). It's essentially identical to Dukoral in terms of composition. OraVacs is a vaccine that protects against cholera and traveller's diarrhoea caused by ETEC in children 2 years of age and older, teenagers, and adults who have come into contact with the disease or who are at risk of coming into contact with it. Three capsules should be taken on Days 0, 7, and 28 for first immunization. In a community trial, OraVacs was assessed for safety and immunogenicity, and results showed that both the high and low doses of vaccination are safe and immunogenic when compared to placebo. There is presently no clinical efficacy assessment available. Only China and the Philippines have OraVacs licences.

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