

Resource October 1, 2015

Feasibility and effectiveness of oral cholera vaccine in an urban endemic setting in Bangladesh: a cluster randomised open-label trial

[Article published by The Lancet in October-2015 by Qadri F. et al. \[1\]](#)

ABSTRACT

Background: Cholera is endemic in Bangladesh with epidemics occurring each year. The decision to use a cheap oral killed whole-cell cholera vaccine to control the disease depends on the feasibility and effectiveness of vaccination when delivered in a public health setting. We therefore assessed the feasibility and protective effect of delivering such a vaccine through routine government services in urban Bangladesh and evaluated the benefit of adding behavioural interventions to encourage safe drinking water and hand washing to vaccination in this setting.

Methods: We did this cluster-randomised open-label trial in Dhaka, Bangladesh. We randomly assigned 90 clusters (1:1:1) to vaccination only, vaccination and behavioural change, or no intervention. The primary outcome was overall protective effectiveness, assessed as the risk of severely dehydrating cholera during 2 years after vaccination for all individuals present at time of the second dose. This study is registered with ClinicalTrials.gov, number NCT01339845.

Findings: Of 268 896 people present at baseline, we analysed 267 270: 94 675 assigned to vaccination only, 92 539 assigned to vaccination and behavioural change, and 80 056 assigned to non-intervention. Vaccine coverage was 65% in the vaccination only group and 66% in the vaccination and behavioural change group. Overall protective effectiveness was 37% (95% CI lower bound 18%; $p=0.002$) in the vaccination group and 45% (95% CI lower bound 24%; $p=0.001$) in the vaccination and behavioural change group. We recorded no vaccine-related serious adverse events.

Interpretation: Our findings provide the first indication of the effect of delivering an oral killed whole-cell cholera vaccine to poor urban populations with endemic cholera using routine government services and will help policy makers to formulate vaccination strategies to reduce the burden of severely dehydrating cholera in such populations.

Topic(s): [Use of OCV in the Field](#) [2]

Country: [Bangladesh](#) [3]

Outside Link: <http://www.sciencedirect.com/science/article/pii/S0140673615611400> [1]

[OCV](#) [4]

[Journal articles](#) [5]

[English](#) [6]

Source URL: <https://www.stopcholera.org/resources/feasibility-and-effectiveness-oral-cholera-vaccine-urban-endemic-setting-bangladesh>

Links

[1] <http://www.sciencedirect.com/science/article/pii/S0140673615611400>

[2] <https://www.stopcholera.org/topics/use-ocv-field>

[3] <https://www.stopcholera.org/countries/bangladesh>

[4] <https://www.stopcholera.org/tags/ocv>

[5] <https://www.stopcholera.org/resource-type/journal-articles>

[6] <https://www.stopcholera.org/language/english>