

Evidence Update

Other Infectious Diseases Series

February 2005

Do cholera vaccines prevent cholera?

Single dose cholera vaccines tested to date provide partial protection for people living in endemic areas for up to 2 years.

Inclusion criteria

Studies:

Randomized or quasi-randomized controlled trials comparing cholera vaccines with placebo, control vaccines, or no intervention.

Participants:

Well adults or children.

Intervention:

Killed cholera vaccines administered by any route.

Outcomes:

Cholera cases; death; systemic and local side effects.

Results

- 25 trials included (18 efficacy trials and 11 safety trials). The 18 efficacy trials included over 2.6 million participants and the 11 safety trials included 9342 adults and children. Allocation concealment was adequate in 23 trials.
- All types of vaccines prevent cholera at 1 year (relative risk 0.51, 95% confidence interval 0.42 to 0.61); and the vaccines remain effective in year 2 (relative risk 0.51, 95% confidence interval 0.42 to 0.62).
- The risk of contracting cholera in year 3 increases; and by years 4 and 5 the vaccines are no longer effective.
- Children under 5 years were only protected for up to 1 year following vaccination, while protection for older children and adults extended up to 3 years.
- Injected vaccines were associated with increased systemic and local side effects compared with placebo, while oral vaccines were not.

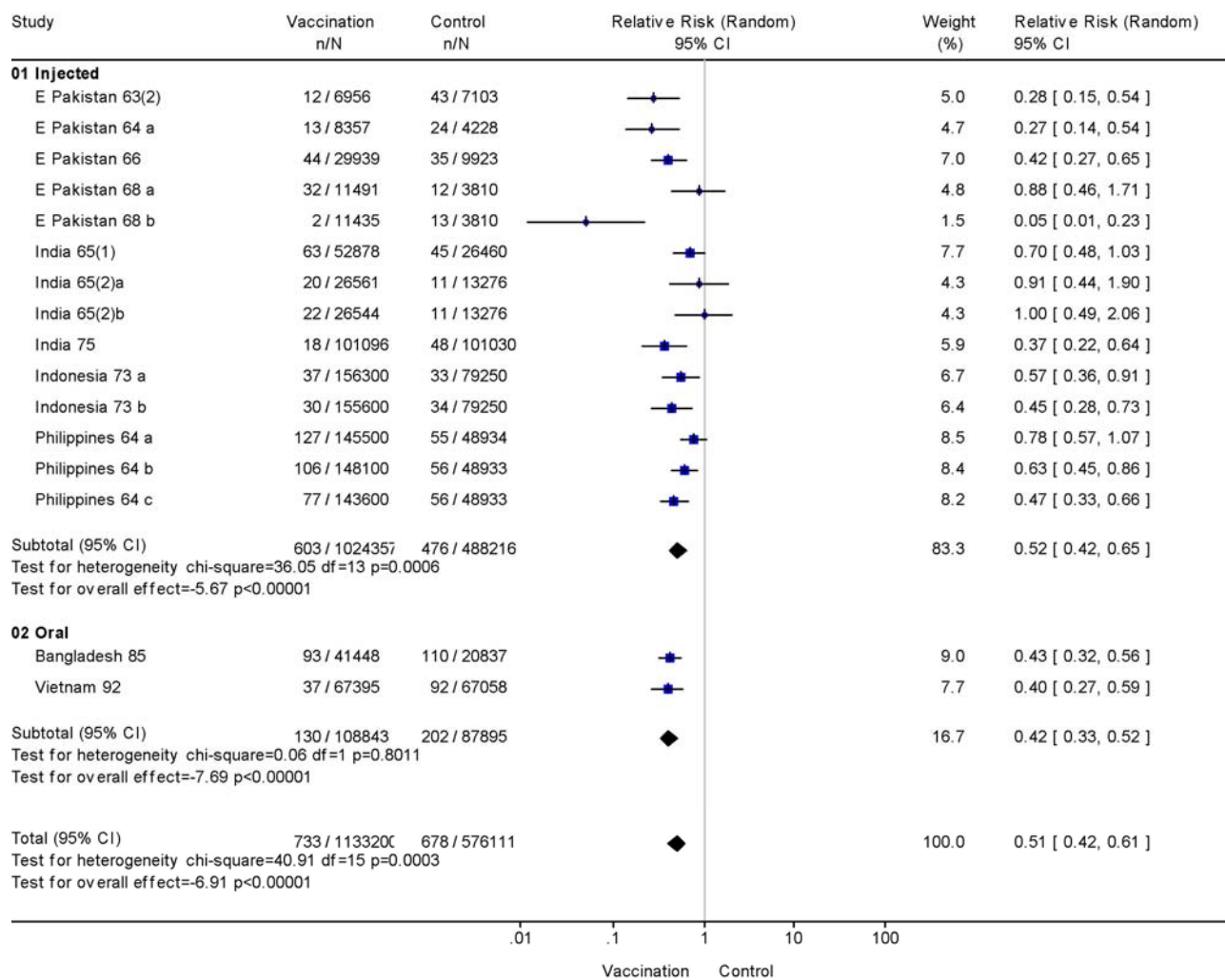


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Adapted from Graves P, Deeks J, Demicheli V, Pratt M, Jefferson T. Vaccines for preventing cholera. *The Cochrane Database of Systematic Reviews* 2001, Issue 1. Art. No.: CD000974. DOI: 10.1002/14651858.CD000974.

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Review: Vaccines for preventing cholera
 Comparison: 01 KWC vaccine vs placebo (no booster, subgroups: injected or oral route)
 Outcome: 02 Cholera cases, up to one year follow up



Authors' conclusions

Implications for practice:

Cholera vaccines can provide protection for populations living in endemic areas for up to 2 years following a single dose, and for 3 to 4 years with annual booster. There are little data on the effect of cholera vaccines in visitors to endemic areas.

Implications for research:

Further trials are needed to evaluate immunization for preventing cholera epidemics, to estimate the most effective dose of oral vaccine for children, and to compare new live oral vaccines with killed vaccines.