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Supplemental Information

The efficacy of COVID-19 vaccines against the B.1.617.2 (delta) variant

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Materials and Methods

Meta-analysis

Inclusion criteria

The study was registered in PROSPERO (CRD42021234481). We identified records by searching Google Scholar, PubMed, Medline, EMBASE and the Cochrane Central Register of Controlled Trials (CENTRAL) for "(COVID-19 vaccine) AND Delta variant or B. 1.617. 2" on 11st August 2021. English-language clinical trials were included.

Exclusion criteria

All 13300 initially identified studies were screened; those that were clinical trials were included (n = 25), and those in which a vaccine against severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) delta variant was not used were excluded (n =14). Trials without efficacy data (n=4) were excluded.

The remaining trials (n=7) included 6 different vaccines. 7 clinical trials were assessed individually, and a total of 504,781 cases (69,315 Vs. 435,466) were included. The total number of vaccine efficacy was compared, the PRISMA diagram of articles selected for meta-analysis was showing in Figure S1. (Figure S1, Table S1)

Statistics

Statistical analyses were performed in GraphPad Prism (version 7, GraphPad Software); the meta-analysis was performed using R statistical software (packages metagen and meta, R Foundation). Vaccine efficacy and their corresponding 95% confidence intervals were estimated using both a fixed-effects model and a random-effects model. In addition, we also conducted sensitivity analyses and multiple subgroup analyses to minimize heterogeneity. Both fixed-effect model and random-effect model were performed. When I2 was less than 50% and P>0.1, the fixed-effect model was chosen; otherwise, the random-effect model was chosen. The Begg's and Egger's tests were not used because there were not more than 10 subjects in each group. Forest plots were constructed to summarize the data for each analytical group according to the incidence rate and to provide a visual analysis of fatal drug-related events.

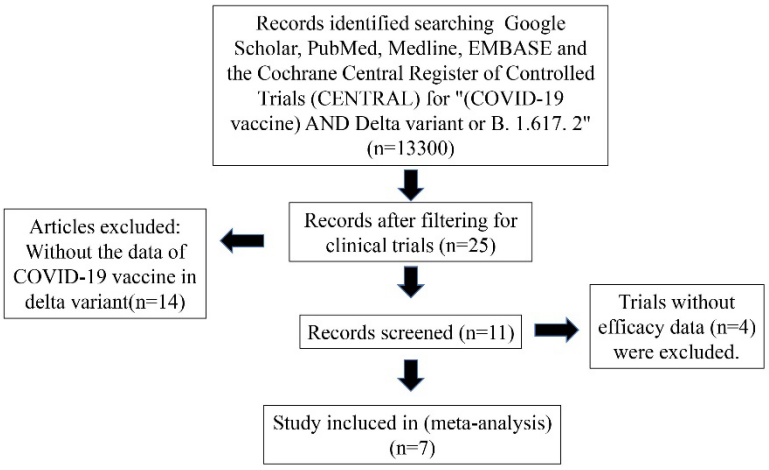

Figure S1. PRISMA diagram of articles selected for meta-analysis