**Appendix 2. Hypothesis test for binary outcomes**

Denote the proportion of events in the Treatment, Placebo, and No-Treatment group as:

The relevant Risk Ratios for the Treatment and Placebo group can be expressed as:

, .

We can then formulate the null and alternative Hypothesis for equivalence in the Treatment and Placebo effect as:

Ho: = 1 , Ha: ≠ 1 .

A point estimate for this statistic can be based on:

with variance: Var .

Using the same technique as for calculating 95% for the relative risk (RR), define the 95% CI as:

to , where:

, with

SE , and

, or .

Hence:

,

with , which gives

.