

The file `rcctdata.csv` contains some simulated cluster RCT data. The outcome variable `y` is binary, the treatment variable is `rx` and the site (or clustering variable) is `ctr`.

Perform and compare two analyses on these data as described below. For each analysis, report the treatment effect as an odds ratio with 95% confidence intervals. You should perform a test of the null hypothesis that the treatments are the same versus they are different. Where appropriate, determine the ICC.

1. Perform an (incorrect) analysis of this trial, ignoring the clustered design.
2. Perform an analysis of the data at the individual level, accounting for the clustering.

You should describe and summarize each analysis in words. Do not submit only your computer output. Your code and output should be included following your write-up.