

**Title: Effect of clinical decision rules, patient cost and malpractice information on clinician brain CT image ordering: A randomized controlled trial**

**Statistical Analysis:**

Data were recorded in our intervention server, housed at the National Institutes of Health, in a Microsoft Excel spreadsheet. The data were downloaded and analyzed using SAS, ver. 9.4 (Cary, NC). In our study, because clinicians' ordering image vs. not ordering image was the main comparison of interest, CT brain modalities (with or without contrast) were grouped together and compared with the no imaging order group. To compare the clinicians' change in image ordering, McNemar test was employed and a multiple comparison adjustment was performed using Bonferroni correction. For the comparison of the demographic or other professional characteristics among different clinician groups, Chi-square test was employed to compare the proportions of categorical variables; if more than 20% of the cells had sample size less than 5, Fisher Exact test was applied instead. Analysis of Variance (ANOVA) test was used to compare the mean (standard deviation) of continuous variables.

A sample size of 155 will achieve 80% power to detect a difference in the proportion of selecting CT imaging if 30% of clinicians choose CT order in the absence of evidence and change to no imaging order when the evidence is presented and 15% of clinicians choose no imaging order in the absence of evidence and changed to CT order when the evidence is presented.