

# Does Treatment Of Sleep-Disordered Breathing Improve Functional Outcomes In SCI?

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Data Analysis Plan

**NCT02830074**

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## DATA ANALYSIS PLAN

Data analysis plan for primary outcomes:

Data Analysis for Aim 1: This aim examines the effects of the BEST program on PAP adherence. The main outcome will be the number of nights (out of 90 nights) with >4 hours of PAP use (measured by the PAP machine itself). Hypothesis 1 will be assessed using a two-sample t-test to compare PAP use for the BEST program vs. control program. Because adherence data will be gathered remotely using telemonitoring technologies in which PAP machines transmit use data to a cloud-based server, complete data is expected for each person.

Data analysis for Aim 2: This aim compares outcome measures assessed at 3-months that are expected to improve as a result of the BEST program. These outcomes will be -- 1) Subjective Sleep Quality Measured by The Pittsburgh Sleep Quality Index (PSQI); 2) Quality of Life as Measured by WHO-QOL BREF Questionnaire, 3) Respiratory Function: Spirometry and Respiratory Muscle Force, 4) Functional Status as Measured by CHART Questionnaire, 5) Depressive Symptom Severity as measured by the Patient Health Questionnaire-9 (PHQ-9); 6) Fatigue Symptoms as measured by Flinders Fatigue Scale; 7) Sleepiness as measured by the Epworth Sleepiness Scale. For each outcome measure, a two-sample t-test will be used to compare PAP use for the BEST program vs. control program.