

Project 6

Read and present the clinical trial of Fluge et al (2019). Alternatively define the overall treatment response as a decrease in the fatigue severity scale from baseline to end-of-follow (FSS_m24). Report the proportion (and its uncertainty) of individuals who responded to each treatment. Construct an appropriate statistical model where you can determine which factors (age; gender; infection – whether disease symptoms started with an infection; SykVarig - disease duration in years with the following categories: 1 – 2-<5, 2 – 5-<10, 3 – 10-15; weight – in centimeters; height – in kilograms; body mass index; FSmean_0 - Fatigue score at baseline; Stepsmean_0m – step count at baseline; FSS_m0; and treatment center) are significantly affecting the fatigue severity scale. Quantify the proportion of individuals who complied with the treatment protocol exactly in each treatment group (see the corresponding data on Figure 1). Finally, construct a plot with a power function for a statistical test with the objective of comparing the proportions of treatment responses using the sample sizes reported in the paper. Place your observed differences in that plot and draw your conclusions.

Reference:

Fluge Ø, Rekeland IG, Lien K, et al. B-Lymphocyte Depletion in Patients With Myalgic Encephalomyelitis/Chronic Fatigue Syndrome: A Randomized, Double-Blind, Placebo-Controlled Trial. *Ann Intern Med*. 2019;170(9):585-593. doi:10.7326/M18-1451