**Objective predictors of Self-report of adherence in adult with cystic fibrosis**

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**Objective:** Self-reported adherence overestimates true adherence and is 14% above pharmacy script collection in our population. Our aim was to investigate the presence of objective measures which could predict self reported adherence.

**Methods:** Patients completed a self-report of adherence (CFQ-R). They were subsequently classified into one of 3 categories: low (<60%), moderate (60-80%), good (>80%) according to a mean of their score from the CFQ-R adherence score and confirmation against prescribed medications. Coefficient of variation (CoV) for FEV1, weight and CRP were each calculated from all clinical contacts within the previous year. Age, gender, microbial status, disease severity, medication, respiratory and anthropometric measures were collected at baseline. Ordinal regression was used to determine the contribution of objective variables to adherence.

**Results**: 249 patients [age 29.7(±9.2) yrs, 58.6% (M)] completed the study. Regression analysis revealed that FEV1 CoV [OR = 0.95; CI: 0.92-0.98, p=0.006], number of types of medication [OR = 1.18; CI: 1.11-1.26, p<0.001], and age [OR = 1.03; CI: 1.01 to 1.06, p=0.026] together explained 19% of the variance in the model, classified as having good fit. Banding status, gender, microbial status, genotype, CoV weight, and Cov CRP did not predict adherence.

**Conclusion**: Although adherence is complex in aetiology, we have shown that 3 objective measures can predict almost 20% of the model. The odds of being in a higher adherence category increase for every year of age , each 1% reduction in CoV FEV1, and each additional medication.