Title: The Effect of Trikafta on Nutrition Status in Patients with Cystic Fibrosis

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Objective: Trikafta, a new medication for cystic fibrosis (CF), is designed to correct the malfunctioning protein made by the cystic fibrosis transmembrane conductance regulator (CFTR) gene. This study assessed the effect of Trikafta on weight/BMI, tube feed (TF) volume, and lung function in patients with CF at the Medical University of South Carolina.

Design: Retrospective Cohort Study

Methods: Twelve patients, ages 8 years to 33 years, were included and categorized as moderate or high nutrition risk. Data of interest were obtained from their electronic medical record at MUSC. Five time points were included: baseline, <3 months, 3-6 months, and >6 months into Excel. Statistical analysis was performed to measure differences between outcomes at baseline and at each time point.

Results: At each time point, patients gained a significant amount of weight with a subsequent rise in BMI ($p<0.05$). At the final time point (>6 months), patients gained an average of 5.2 kg with a BMI increase of 1.51 kg/m^2. Change in percentage predicted forced expiratory volume in 1 second (ppFEV1; lung function) could not be determined at all time points, though a positive yet insignificant average change of +7.3% was found at <3 months. Changes in TF volume were negligible.

Conclusions: Based on the results, Trikafta use is strongly associated with weight gain in patients with CF at moderate or high nutrition risk upon starting treatment. Further research in larger study populations must be conducted to draw conclusions about its effects on TF volume and ppFEV1.

Conflict of Interest: There were no conflicts of interest during this study.