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Genetics (Biology 294)

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Writing Assignment #4- Primary Genetics Article Review

A group of researchers wanted to see if different durations of intravenous antimicrobials matter during CF exacerbations. These different durations are considered a common treatment for those many people diagnosed with cystic fibrosis. The tests were controlled and randomized with the same method used for the 1,687 adult test subjects. The method used for the test subjects was the standardized treatment of pulmonary exacerbations. After being tested, the adult test subjects with predefined or improved lung function were confined to a ten to fourteen day duration period to see if any effects persist, while all the other subjects were confined to a fourteen to twenty-one day period instead. After the ten to twenty-one day period passed for the test subjects, they were brought back in to see the results. The main result was that the FEV1 changed dramatically for a two week period after cessation. 277 out of 982 tests with improved criteria and randomized to a ten to fourteen day treatment, while the rest of the test subjects (705) were subjected to a twenty-one or fourteen day treatment. The FEV1 mean changes for the ten to fourteen day treatment were 12.8 and 13.4, which is a -0.65 difference between the two results. On the other hand, the twenty-one to fourteen day period test subjects had a mean of 3.3 and 3.4, a difference of 0.1 in general. In conclusion, the adult test subjects that had improved early treatment with FEV1 had better results for fourteen days as opposed to the ten days. On the other hand, those with less improvement had better effects for fourteen days as opposed to twenty-one days.

Goss, CH. A Randomized Clinical Trial of Antimicrobial Duration for Cystic Fibrosis Pulmonary Exacerbation Treatment. PubMed,
DOI:10.1164/rccm.202102-0461OC. December 1, 2021.