

10.11 Frequency of Spontaneously Expectored Sputum Samples in Adult People with Cystic Fibrosis, Pre vs Post Elexacaftor/Ivacaftor/Tezacaftor Initiation.

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Background: Early detection of lower respiratory tract infections (LRTIs) in People with Cystic Fibrosis (PwCF) is paramount to disease management and improved health outcomes. Currently, the primary method for LRTI detection involves spontaneously expectorated sputum samples. Since initiating Elexacaftor/Ivacaftor/Tezacaftor (EIT), many PwCF report less coughing and sputum production, potentially limiting opportunity for LRTI detection. This study compares the frequency of spontaneously expectorated sputum samples pre- vs post-EIT and makes recommendations for future sampling methods.

Methods: PwCF > 18 years old, attending University Hospital Limerick were included. PwCF without recorded start dates, or, not currently taking EIT were excluded. Samples from 2018 to 2022 were analysed to determine the average number of patient's samples before vs after initiating EIT.

Results: Of 81 PwCF, 36 were included in the analysis. Table 1 outlines sample means and standard deviations pre- (8.5, SD=8.8) vs post- (1.8, SD=2.4) EIT. Graph 1 demonstrates reducing sampling frequencies since EIT's use.

Conclusion: The use of EIT correlates with decreased sputum sampling frequency. Therefore, Induced Sputum sampling is recommended for PwCF who are incapable of spontaneous sputum expectoration.

Keywords: Cystic Fibrosis, Sputum Sampling, Elexacaftor/Ivacaftor/Tezacaftor (EIT).

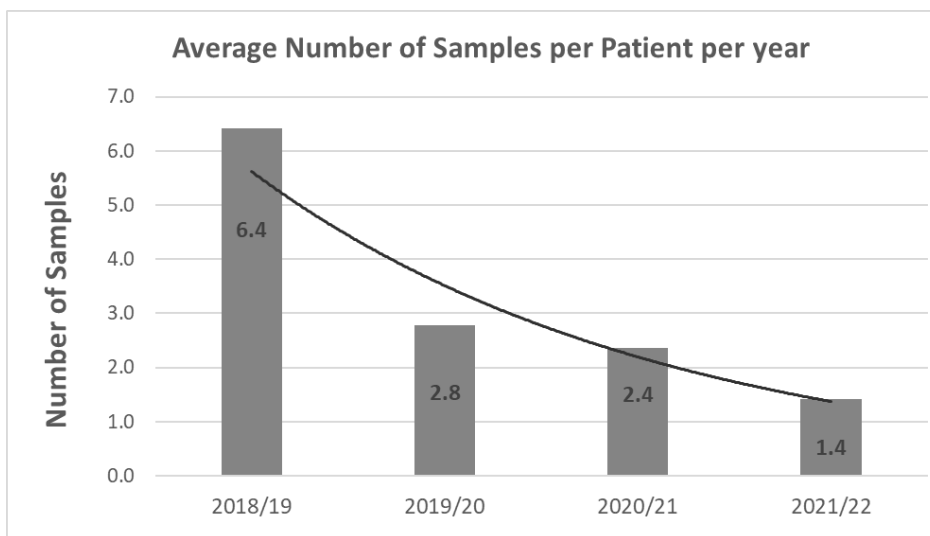
Conflict of Interest: The authors declare that they have no conflict of interest.

Table 1.

	Pre-EIT	Post-EIT
Number (n)	306	64
Range	43	9
Minimum	0	0
Maximum	43	9
Mean	8.5	1.8
Std. Deviation	8.8	2.4
Skewness	2.2	1.7
Kurtosis	6.5	2.3

Table 1. Descriptive data for number of samples (n) taken Pre- vs Post- EIT Initiation

Graph 1.



Graph 1. Average number of samples taken per patient per year

*Year runs between 01 October to 30 September