

## **10.14 Not Always What It Seems: A Cross-Sectional Study Looking at Cystic Fibrosis Patients not prescribed Cystic Fibrosis Transmembrane Receptor Modulator (CFTR) Therapy.**

Aoife Carolan<sup>1</sup>, Claire Fleming<sup>1</sup>, Mairead McCarthy<sup>1</sup>, James Dorgan<sup>1</sup>, Sarah Twohig<sup>1</sup>, Janice Mansfield<sup>1</sup>, Edel Madden<sup>1</sup>, Sarah Mulcahy<sup>1</sup>, Ciara Howlett<sup>1</sup>, Karen Cronin<sup>1</sup>, Kevin F Deasy<sup>1,2</sup>, Hisham Ibrahim<sup>1,2</sup>, Barry J. Plant<sup>1,2</sup>.

<sup>1</sup>Cork Centre for Cystic Fibrosis (3CF), Cork University Hospital, Cork, Ireland

<sup>2</sup>HRB Clinical Research Facility Cork, University College Cork, Cork, Ireland

**Background:** Life-changing CFTR modulator therapy eligibility is determined by genotype, with approximately 10% of patients worldwide predicted to be ineligible (1).

**Methods:** This cross-sectional study assessed the characteristics of CF patients not prescribed CFTR-modulators attending our adult CF service on June 1st 2022, the reason why, clinical outcomes including: percentage predicted forced expiratory volume in one second, body mass index, number of infective pulmonary exacerbations and hospitalisations and compared them to those on a CFTR-modulator.

**Results:** 156 patients were analysed. 17(9.3%) were not prescribed a CFTR-modulator; 15(88.2%) due to personal choice, with only two ineligible due to genotype representing 1.3% of the total eligible cohort. Those not prescribed a CFTR-modulator were older ( $p=0.0255$ ), trended towards a higher median ppFEV1 (92%, ( $Z=1.562$ ,  $p=0.1182$ )), had a normal median BMI, 24.6(IQR 6.5), and a lower burden of complications with an association between pancreatic insufficiency and modulator therapy (OR 16.63,  $P<0.0001$ ).

**Conclusion:** Although at first glance the percentage of patients not prescribed a CFTR-modulator was consistent with the 10% predicted ineligibility worldwide, on closer examination this is not the case. Only 1.3% of patients were ineligible due to genotype. There appears to be a self-selecting group choosing to remain off modulators.

**Keywords:** CFTR Modulator, Patient choice

**Disclosures.** Nil

**Corresponding Author:**

Aoife Carolan, ORID: 0009-0002-3536-101X

Barry J. Plant, ORCID: 0000-0002-4611-6768

1. Desai M, Hine C, Whitehouse JL, Brownlee K, Charman SC, Nagakumar P. Who are the 10%? - Non eligibility of cystic fibrosis (CF) patients for highly effective modulator therapies. *Respiratory Medicine*. 2022;199:106878.