Objectives: Burnout is a work-related syndrome characterized by emotional exhaustion, reduced personal accomplishment/satisfaction, and increased depersonalization (emotional detachment). Rates of burnout are particularly high among healthcare providers. Using a national survey, we assessed rates of burnout among CF healthcare providers, drivers of burnout, and coping strategies.
Methods: A REDCap survey was launched June, 2024. Two standardized measures were administered:Maslach Burnout Inventory [MBI] and Professional Quality of Life Survey [ProQOL]. MBI includes 3 scales: Emotional Exhaustion, Personal Accomplishment, Depersonalization; ProQOL includes 3 scales: Compassion Satisfaction, Burnout, Secondary Traumatic Stress.
Results: Of 645 respondents, 599 finished at least one measure. Most respondents were female (82.7%), White (84%), and have worked in CF for 15+ years (31.7%). Respondents included: physicians (23.6%), nurses (20.8%), allied health (27.9%), and mental health (MH) providers (22.6%). *MBI*
Results: moderate to high Emotional Exhaustion= 56.2%; low to moderate Personal Accomplishment= 41.9%; moderate to high Depersonalization= 42.7%. *ProQOL*
Results: moderate Compassion Satisfaction= 53.6%; moderate Burnout= 46.9%; moderate Secondary Traumatic Stress= 33.1%. Comparisons by profession indicated MH clinicians (e.g., psychologists, social workers, psychiatrists) endorsed higher/better scores on Burnout, Personal Accomplishment and Depersonalization than other providers. In comparison to MH clinicians: physicians reported significantly more Burnout and higher Depersonalization, $p<.05$; allied health professionals higher Depersonalization; nurses, allied health and research/admin staff lower levels of Personal Accomplishment, $p<.05$.
Conclusions: Substantial evidence of burnout was reported by CF providers, with MH clinicians reporting less burnout than others. Next steps include analysis of key drivers of burnout and mitigation strategies.

P020

Comparing impulse oscillometry in primary ciliary dyskinesia, cystic fibrosis, and healthy preschool-age children

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Background: Although the forced oscillation technique has been used for many years in children, there is still inconclusive results about its efficiency in cystic fibrosis(CF).Moreover, no studies have been conducted on impulse oscillometry (IOS) in children with primary ciliary dyskinesia(PCD).Our aim was to compare oscillometric parameters in children between 3 and 6 years with CF,PCD and healthy children.
Methods: In this prospective study, demographic data of the children were recorded.Each participant completed at least three IOS measurements,with analysis based on the best measurement meeting acceptability criteria.Spirometry tests were not performed since the children were not capable of performing an acceptable test.
Results: Twenty-seven children with CF,21 with PCD and 27 healthy children were included,with mean ages of 4.11±1.08,4.33±1.23,and 4.41±0.79 years,respectively.No significant differences were revealed in the comparison of the z-scores of the parameters of the CF group with those of the PCD group and healthy group.However,in the PCD group,z-scores of R5 and Z5 were significantly higher than those in the healthy group(p=0.018 and p=0.008,respectively).In addition, z-scores of X10,X15,X20 were significantly lower in children with PCD compared with the healthy group(p=0.013,p=0.033 and p=0.029,respectively).
Conclusions: This study highlights that IOS can be performed in young children unable to cooperate with spirometry.IOS parameters showed no difference between CF and healthy groups,possibly due to uneven sound wave transmission caused by thicker CF secretions.In many studies IOS was shown to fail to detect early pulmonary disease, even when the spirometry was abnormal.However,in PCD patients, airway resistance was higher and reactance, indicating lung tissue distensibility, was lower compared to healthy controls.Additionally,IOS was found to be more informative in individuals with bronchial hyperreactivity in many studies, such as those with PCD.

Table 1. Demographic data of children with cystic fibrosis and primary ciliary dyskinesia

	CF (n= 27)	PCD (n=21)
Age (year), median (IQR)	4 (3-5)	4 (3-5)
Gender, n (%)		
Male	15 (55.6)	15 (55.6)
Female	12 (44.4)	12 (44.4)
Genetic results		
F508del homozygous, n (%)	6 (22%)	-
F508del heterozygous, n (%)	5 (18.5%)	-
Others, n (%)	16 (59.5%)	-
PICADAR score, median (IQR)	-	8 (6-10)
High speed video microscopy motion pattern (n:21)		
immotile, n (%)	-	6 (28.5%)
stiff movement	-	6 (28.5%)
hypokinetic/hyperkinetic ciliary movement, n (%)	-	6 (28.5%)
normal, n (%)	-	3 (14.3%)
PCD gene panel (35 genes screened) results (n:11)		
CDCC40 heterozygous, n (%)	-	2 (18%)
DNAH11 heterozygous, n (%)	-	2 (18%)
DNAH5 heterozygous, n (%)	-	1 (5%)
DNAAF1 homozygous, n (%)	-	1 (5%)
DNAL1 homozygous, n (%)	-	1 (5%)
RSPH3 heterozygous, n (%)	-	1 (5%)
Normal, n (%)	-	2 (18%)

Table 1. Oscillometric data of the CF, PCD, and healthy groups

IOS Parameters	CF (n= 27)	PCD (n= 21)	Healthy (n= 27)	p
R5, (kPa/L/s), z-score	0.19 ± 1.32	**0.79 ± 1.79**	**-0.18 ± 1.19**	**0.144**
R10, (kPa/L/s), z-score	-1.21 ± 1.11	-0.92 ± 1.04	-1.41 ± 0.84	0.473
R15, (kPa/L/s), z-score	-1.82 ± 0.99	-1.65 ± 0.92	-2.02 ± 0.91	0.562
R20, (kPa/L/s), z-score	-1.92 ± 0.88	-1.77 ± 0.84	-2.10 ± 0.83	0.665
D5-20 (kPa/L/s), z-score	2.11 ± 1.26	2.56 ± 1.96	1.92 ± 1.23	0.207
X5, (kPa/L/s), z-score	1.40 ± 2.54	0.78 ± 2.75	0.97 ± 2.04	0.431
X10, (kPa/L/s), z-score	-3.10 ± 1.99	**-4.20 ± 2.77**	**-2.75 ± 1.72**	**0.013**
X15, (kPa/L/s), z-score	-1.58 ± 1.49	**-2.35 ± 2.05**	**-1.17 ± 1.15**	**0.033**
X20, (kPa/L/s), z-score	-2.10 ± 1.94	**-2.95 ± 2.33**	**-1.50 ± 1.26**	**0.029**
Z5, (kPa/L/s), z-score	0.12 ± 1.33	**0.79 ± 1.72**	**-0.19 ± 1.16**	**0.008**

P021

Colorectal cancer screening in cystic fibrosis lung transplant recipients in Ireland

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Objectives: The risk of colorectal cancer (CRC) in adults with Cystic Fibrosis (CF) is 5–10 times greater compared to the general population and 25–30 times greater in CF patients after organ transplantation.[1,2] CF Foundation (CFF) guidelines recommend screening colonoscopy if aged 30 years and well enough within 2 years of lung transplant with follow up CRC re-screening every 3-5 years and documented discussion in patients declining screening. We audited our practice compared to CFF guidelines in people with CF post lung transplant.
Methods: Following approval, a retrospective chart review was carried out on all CF patients post lung transplantation followed in MMUH. Immunosuppression regimen and date, results and histology of colonoscopies post lung transplantation were reviewed.
Results: 78 recipients were included: 31.6% were female. Average age at transplant was 28.4 years (SD=8.2) and mean time post-transplant was 10.5 years. There was a significant difference in mean age at transplant before and after 2018 (33.3 vs 26.3 years, $p<0.001$). 13.9% received another solid organ transplant (9/11 renal, 2/11 heart, 1/11 liver). 75.9% of patients had CRC screening performed in MMUH, with the rest screened in their local CF centre. 100% of patients had documented discussions offering screening and no patients were screened with CT Colonography.