Citation:
White, H and Denman, S and Shaw, N and Wynn, S and Pollard, K and Peckham, DG (2014) Relationship between self-reported adherence, medication collections and clinical variation in cystic fibrosis. Journal of Cystic Fibrosis, 13 (Suppl). S117 - S117. ISSN 1873-5010 DOI: https://doi.org/10.1016/S1569-1993(14)60408-2

Link to Leeds Beckett Repository record:
https://eprints.leedsbeckett.ac.uk/id/eprint/1975/

Document Version:
Article (Updated Version)

The aim of the Leeds Beckett Repository is to provide open access to our research, as required by funder policies and permitted by publishers and copyright law.

The Leeds Beckett repository holds a wide range of publications, each of which has been checked for copyright and the relevant embargo period has been applied by the Research Services team.

We operate on a standard take-down policy. If you are the author or publisher of an output and you would like it removed from the repository, please contact us and we will investigate on a case-by-case basis.

Each thesis in the repository has been cleared where necessary by the author for third party copyright. If you would like a thesis to be removed from the repository or believe there is an issue with copyright, please contact us on openaccess@leedsbeckett.ac.uk and we will investigate on a case-by-case basis.

Relationship between self-reported adherence, medication collections and clinical variation in cystic fibrosis

White H, Huntington S, Shaw N, Wynn S, Pollard K, Peckham DG

Objectives: In 2007 an electronic clinical record (ECR) was implemented within a Regional Adult CF unit (420 patients) coding for all variables of CF, captured at each contact. Longitudinal patterns of clinical variation have emerged that suggest a relationship between variation in lung function between treatments and overall adherence. Our aim was to 1) determine the accuracy of self-report adherence 2) explore the relationship between clinical variation and adherence.

Methods: Patients completed a self-report of adherence (CFQ-R) and consented to pharmacy script data collection (previous 6 months). Coefficient of variation for FEV_1 was calculated from all clinical contacts within the previous year. Age, gender, microbial status, disease severity, medication, lung function and anthropometric measures were collected.

Results: 250 patients [age 29.7(±9.2) years, 58.6% (M), baseline BMI22.5 kg/m^2 (±3.8), FEV_1 61.3% (±25.1), FVC 79.4% (±23.1)] completed the study

Selected variables of adherence		Correlations with self-report adherence						Descriptive stats	
Adherence Self-Report (using CFQ-R) (%)		Pharmacy collection	Sig	FEV_1 Coeff Variation	Sig	CRP coeff variation	Sig	Pharmacy discrepancy (%)	Sig
Total adherence	77.7(±17.5)	0.61	p<0.001	-0.16	P<0.001	0.05	p=0.20	14.3	p<0.001
Aerosol to thin mucus	73.0(±37.8)	0.51	p<0.001	-0.11	p=0.06	0.15	p=0.02	19.2	p<0.001
Aerosol to open airway	82.3(±31.9)	0.34	P<0.005	0.001	p=0.47	0.16	p=0.025	4.5	p=0.24
Inhaler	77.4(±35.4)	0.51	p<0.001	-0.07	p=0.21	0.12	p=0.07	16.2	p<0.001
PERT	91.4(±21.3)	0.45	p<0.001	-0.21	P=0.001	-0.12	p=0.04	23.6	p<0.001
Vitamins	88.2(±27.2)	0.46	p<0.001	-0.03	P=0.35	0.15	p=0.01	24.7	p<0.001
Oral nutrition supplements	64.1(±39.8)	0.51	p<0.001	-0.20	P=0.01	-0.06	p=0.28	18.1	p<0.001
Oral antibiotics	86.4(±26.6)	0.32	p<0.001	-0.15	P=0.01	-0.08	p=0.11	19.5	p<0.001
Nebulised antibiotics	67.4(±9.1)	0.55	p<0.001	-0.19	P=0.01	-0.04	p=0.31	2.1	P=0.43

Conclusion: Self-report consistently exceeds medication collection. Longitudinal indices of lung function inversely relate to reported adherence, enabling investigation of FEV_1 coefficient variation as a predictor of adherence in CF